



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

TO: Interested Parties / Applicant

DATE: April 27, 2011

RE: Niblock Excavating, Inc. / 039-30029-03296

FROM: Matthew Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

## Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures  
FNPER.dot12/03/07



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

## Federally Enforceable State Operating Permit Renewal OFFICE OF AIR QUALITY

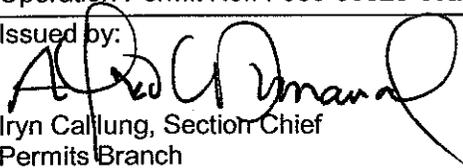
**Niblock Excavating, Inc.  
52019 County Road 23  
Bristol, Indiana 46507**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

**The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.**

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

Operation Permit No.: F039-30029-03296	
Issued by:  Iryn Callung, Section Chief Permits Branch Office of Air Quality	Issuance Date: April 27, 2011  Expiration Date: April 27, 2021

## TABLE OF CONTENTS

<b>A. SOURCE SUMMARY.....</b>	<b>5</b>
A.1 General Information [326 IAC 2-8-3(b)]	
A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]	
A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]	
A.4 FESOP Applicability [326 IAC 2-8-2]	
<b>B. GENERAL CONDITIONS.....</b>	<b>7</b>
B.1 Definitions [326 IAC 2-8-1]	
B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]	
B.3 Term of Conditions [326 IAC 2-1.1-9.5]	
B.4 Enforceability [326 IAC 2-8-6] [IC 13-17-12]	
B.5 Severability [326 IAC 2-8-4(4)]	
B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]	
B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]	
B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]	
B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]	
B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]	
B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]	
B.12 Emergency Provisions [326 IAC 2-8-12]	
B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]	
B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]	
B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]	
B.16 Permit Renewal [326 IAC 2-8-3(h)]	
B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]	
B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]	
B.19 Source Modification Requirement [326 IAC 2-8-11.1]	
B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2] [IC 13-30-3-1]	
B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]	
B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] [326 IAC 2-1.1-7]	
B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]	
<b>C. SOURCE OPERATION CONDITIONS.....</b>	<b>17</b>
<b>Emission Limitations and Standards [326 IAC 2-8-4(1)]</b>	
C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]	
C.2 Overall Source Limit [326 IAC 2-8]	
C.3 Opacity [326 IAC 5-1]	
C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]	
C.6 Fugitive Dust Emissions [326 IAC 6-4]	
C.7 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]	
C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]	
<b>Testing Requirements [326 IAC 2-8-4(3)]</b>	
C.9 Performance Testing [326 IAC 3-6]	

**Compliance Requirements [326 IAC 2-1.1-11]**

- C.10 Compliance Requirements [326 IAC 2-1.1-11]

**Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

- C.11 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]
- C.12 Continuous Compliance Plan [326 IAC 6.8-8-1] [326 IAC 6.8-8-8]
- C.13 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)]  
[326 IAC 2-8-5(1)]

**Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

- C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]
- C.16 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]
- C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]  
[326 IAC 2-8-5]

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

- C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]
- C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

**Stratospheric Ozone Protection**

- C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

**D.1. EMISSIONS UNIT OPERATION CONDITIONS..... 24**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

- D.1.1 PSD Minor Limit [326 IAC 2-2]
- D.1.2 FESOP Limits [326 IAC 2-8-4][326 IAC 2-2][326 IAC 8-1-6]
- D.1.3 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1] [326 IAC 7-2-1]
- D.1.4 Sulfur Dioxide (SO<sub>2</sub>) Emissions [326 IAC 2-8-4] [326 IAC 2-2]
- D.1.5 Hazardous Air Pollutants (HAPs) [326 IAC 2-8-4][326 IAC 2-4.1]
- D.1.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

**Compliance Determination Requirements**

- D.1.7 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]
- D.1.8 Particulate Matter (PM and PM<sub>10</sub>) Control
- D.1.9 Sulfur Dioxide Emissions and Sulfur Content
- D.1.10 Multiple Fuel Usage and Sulfur Dioxide Emissions
- D.1.11 Chlorine and Asbestos Content

**Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

- D.1.12 Visible Emissions Notations
- D.1.13 Parametric Monitoring
- D.1.14 Broken or Failed Bag Detection

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

- D.1.15 Record Keeping Requirements
- D.1.16 Reporting Requirements

**D.2. EMISSIONS UNIT OPERATION CONDITIONS..... 32**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

- D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-5-2]
- D.2.2 Volatile Organic Compounds (VOC) [326 IAC 2-8-4] [326 IAC 2-2]

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

- D.2.3 Record Keeping Requirements
- D.2.4 Reporting Requirements

**E.1. EMISSIONS UNIT OPERATION CONDITIONS.....35**

**New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4(1)]**

- E.1.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]
- E.1.2 New Source Performance Standards (NSPS) for Hot Mix Asphalt Facilities [40 CFR Part 60, Subpart I] [326 IAC 12]
- E.1.3 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

**Certification Form..... 37**  
**Emergency Occurrence Form..... 38**  
**Quarterly Report Forms..... 40**  
**Quarterly Deviation and Compliance Monitoring Report Form..... 46**

**Appendix A: Fugitive Dust Plan**

**Appendix B: 40 CFR Part 60 - NSPS Subpart I - Standards of Performance for Hot Mix Asphalt Facilities**

## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

---

The Permittee owns and operates a stationary asphalt plant. This source does not use shingles, but does use blast furnace and steel slag in the asphalt aggregate mix and does manufacture and/or produce cold-mix asphalt.

Source Address:	52019 County Road 23, Bristol, Indiana 46507
General Source Phone Number:	574-848-4437
SIC Code:	2951
County Location:	Elkhart
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

---

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) drum hot-mix asphalt plant consisting of the following:

One (1) aggregate mixer/dryer, identified as S-1, constructed in 1995, with a maximum capacity of 350 tons per hour, equipped with one (1) 100 million British thermal units per hour (MMBtu) aggregate dryer with particulate matter emissions controlled by a primary settling chamber and a baghouse in series, exhausting through stack S-1. The burner will be fired by natural gas or waste oil with No. 2 fuel oil used as a standby fuel. This source does not use shingles, but does use blast furnace and steel slag in the asphalt aggregate mix.

Under 40 CFR 60, Subpart I, this hot mix asphalt plant is considered an affected facility.

(b) One (1) 2.115 million British Thermal Units (MMBtu) per hour natural gas fired liquid asphalt heater, identified as S-2, exhausting to stack S-2.

(c) Material handling, screening and conveying operations, constructed in 1995, Uncontrolled and exhausting to the outside atmosphere, consisting of the following:

- (1) Six (6) raw aggregate feed bins (for aggregate going into batch plant), identified as ID#1AFB, #2AFB, #3AFB, #4AFB, #5AFB and #6AFB, each with a capacity of 30 tons.
- (2) Two (2) drag conveyors, identified as #1DC and #2DC, each with a capacity of 400 tons per hour.
- (3) One (1) aggregate feeder conveyor, with a capacity of 400 tons per hour.

- (4) One (1) drag slat conveyor, with a capacity of 400 tons per hour.
- (5) One (1) recycle conveyor, with a capacity of 400 tons per hour.
- (6) One (1) screen deck, with a capacity of 400 tons per hour.

The above units are considered as part of an affected facility under 40 CFR 60, Subpart I.

- (d) One (1) cold-mix (cutback) asphalt storage stockpile, identified as F-4, consisting of medium cure mix with equal to or less than 38 percent fuel oil in cutback, with a maximum storage capacity of 2,000 tons.
- (e) Four (4) liquid asphalt storage tanks, including:
  - (1) One (1) 12,000 gallon storage tank, identified as S-3.
  - (2) One (1) 12,000 gallon storage tank, identified as S-4.
  - (3) One (1) 20,000 gallon storage tank, identified as S-5.
  - (4) One (1) 15,000 gallon storage tank, identified as S-6.
- (f) One (1) 20,000 gallon waste oil storage tank, identified as T-1.
- (g) Two (2) distillate No. 2 fuel oil storage tanks, including:
  - (1) One (1) 8,000 gallon storage tank, identified as S-7.
  - (2) One (1) 10,000 gallon storage tank, identified as S-8.
- (h) Aggregate storage piles with a maximum storage capacity of 500,000 tons.
- (i) Recycled asphalt pavement storage piles with a maximum storage capacity of 80,000 tons.
- (j) Three (3) hot mix asphalt cement silos, with 280 tons capacity, each.
- (k) One (1) lime silo, identified as S-1, with 150 ton capacity.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

- (a) Unpaved roads (no paved roads) and parking lots with public access. [326 IAC 6-4]

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

## SECTION B GENERAL CONDITIONS

### B.1 Definitions [326 IAC 2-8-1]

---

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

### B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

---

- (a) This permit, F039-30029-03296, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

### B.3 Term of Conditions [326 IAC 2-1.1-9.5]

---

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

### B.4 Enforceability [326 IAC 2-8-6] [IC 13-17-12]

---

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### B.5 Severability [326 IAC 2-8-4(4)]

---

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

---

This permit does not convey any property rights of any sort or any exclusive privilege.

### B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

---

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

### B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

---

- (a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:

- (1) it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and
  - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**B.12 Emergency Provisions [326 IAC 2-8-12]**

---

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.

- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, or Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or  
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)  
Facsimile Number: 317-233-6865  
Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
- (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

**B.13** Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to F039-30029-03296 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
  - (2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

**B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]**

---

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

**B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]**

---

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.16 Permit Renewal [326 IAC 2-8-3(h)]**

---

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue

MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

**B.19 Source Modification Requirement [326 IAC 2-8-11.1]**

---

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

**B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]**

---

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:  
  
Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

**B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]**

---

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

#### C.2 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

#### C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A,

Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]**

---

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

**C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]**

---

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

**C.6 Fugitive Dust Emissions [326 IAC 6-4]**

---

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

**C.7 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]**

---

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the attached plan as in Attachment A.

**C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]**

---

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

### **Testing Requirements [326 IAC 2-8-4(3)]**

#### **C.9 Performance Testing [326 IAC 3-6]**

---

- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

## **Compliance Requirements [326 IAC 2-1.1-11]**

### **C.10 Compliance Requirements [326 IAC 2-1.1-11]**

---

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

## **Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

### **C.11 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]**

---

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

### **C.12 Continuous Compliance Plan [326 IAC 6.8-8-1] [326 IAC 6.8-8-8]**

---

- (a) Pursuant to 326 IAC 326 IAC 6.8-8-1, the Permittee shall submit to IDEM and maintain at source a copy of the Continuous Compliance Plan (CCP). The Permittee shall perform the inspections, monitoring and record keeping in accordance with the information in 326 IAC 6.8-8-5 through 326 IAC 6.8-8-7 or applicable procedures in the CCP.
- (b) Pursuant to 326 IAC 6.8-8-8, the Permittee shall update the CCP, as needed, retain a copy of any changes and updates to the CCP at the source and make the updated CCP available for inspection by the department. The Permittee shall submit the updated CCP, if required to IDEM, OAQ within thirty (30) days of the update.
- (c) Pursuant to 326 IAC 6.8-8, failure to submit a CCP, maintain all information required by the CCP at the source, or submit update to a CCP is a violation of 326 IAC 6.8-8.

### **C.13 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]**

---

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale

such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

### **Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

#### **C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

---

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

#### **C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]**

---

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

#### **C.16 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]**

---

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
  - (1) initial inspection and evaluation;
  - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;
  - (2) review of operation and maintenance procedures and records; and/or
  - (3) inspection of the control device, associated capture system, and the process.

- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

**C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

**C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]**

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

**C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]**

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (b) The address for report submittal is:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

### **Stratospheric Ozone Protection**

#### **C.20 Compliance with 40 CFR 82 and 326 IAC 22-1**

---

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (a) One (1) drum hot-mix asphalt plant consisting of the following:

One (1) aggregate mixer/dryer, identified as S-1, constructed in 1995, with a maximum capacity of 350 tons per hour, equipped with one (1) 100 million British thermal units per hour (MMBtu) aggregate dryer with particulate matter emissions controlled by a primary settling chamber and a baghouse in series, exhausting through stack S-1. The burner will be fired by natural gas or waste oil with No. 2 fuel oil used as a standby fuel. This source does not use shingles, but does use blast furnace and steel slag in the asphalt aggregate mix.

Under 40 CFR 60, Subpart I, this hot mix asphalt plant is considered an affected facility.

- (b) One (1) 2.115 million British Thermal Units (MMBtu) per hour natural gas fired liquid asphalt heater, identified as S-2, exhausting to stack S-2.
- (c) Material handling, screening and conveying operations, constructed in 1995, uncontrolled and exhausting to the outside atmosphere, consisting of the following:
- (1) Six (6) raw aggregate feed bins (for aggregate going into batch plant), identified as ID#1AFB, #2AFB, #3AFB, #4AFB, #5AFB and #6AFB each with a capacity of 30 tons.
  - (2) Two (2) drag conveyors, identified as #1DC and #2DC, each with a capacity of 400 tons per hour.
  - (3) One (1) aggregate feeder conveyor, with a capacity of 400 tons per hour.
  - (4) One (1) drag slat conveyor, with a capacity of 400 tons per hour.
  - (5) One (1) recycle conveyor, with a capacity of 400 tons per hour.
  - (6) One (1) screen deck, with a capacity of 400 tons per hour.

The above units are considered as part of an affected facility under 40 CFR 60, Subpart I.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.1 PSD Minor Limit [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

- (a) The asphalt production rate shall not exceed 1,000,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) PM emissions from the dryer/mixer shall not exceed 0.376 pounds of PM per ton of asphalt produced.

Compliance with these limits, combined with the potential to emit PM from all other emission units

at this source, shall limit the source-wide total potential to emit of PM to less than two hundred fifty (250) tons per twelve (12) consecutive month period and shall render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.2 FESOP Limits [326 IAC 2-8-4] [326 IAC 2-2][326 IAC 8-1-6]

Pursuant to 326 IAC 2-8-4, the Permittee shall comply with the following:

- (a) The asphalt production rate shall not exceed 1,000,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) PM10 emissions from the dryer/mixer shall not exceed 0.160 pounds of PM10 per ton of asphalt produced.
- (c) PM2.5 emissions from the dryer/mixer shall not exceed 0.180 pounds of PM2.5 per ton of asphalt produced.
- (d) CO emissions from the dryer/mixer shall not exceed 0.130 pounds of CO per ton of asphalt produced.
- (e) The VOC emissions from the dryer/mixer shall not exceed 0.032 pounds per ton of asphalt processed.

Compliance with these limits, combined with the limited potential to emit PM10, PM2.5, CO and VOC, from all other emission units at this source, shall limit the source-wide total potential to emit of PM10, PM2.5, CO, and VOC to less than one hundred (100) tons per twelve (12) consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-2 (PSD) not applicable.

In addition, compliance with these limits specified in (a) and (e) shall limit the VOC emissions from the dryer/mixer to less than twenty-five (25) tons per twelve (12) consecutive month period and shall render 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities) not applicable.

D.1.3 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1][326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), the Permittee shall comply with the following:

- (a) The sulfur dioxide (SO<sub>2</sub>) emissions from the dryer/mixer burner shall not exceed five tenths (0.5) pounds per MMBtu when using distillate oil.
- (b) The sulfur dioxide (SO<sub>2</sub>) emissions from the dryer/mixer burner shall not exceed one and six tenths (1.6) pounds per MMBtu heat input when using residual oil.
- (c) Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

Note: No. 2 fuel oil is distillate oil and waste oil is residual oil.

D.1.4 Sulfur Dioxide (SO<sub>2</sub>) Emissions [326 IAC 2-8-4] [326 IAC 2-2]

Pursuant to 326 IAC 2-8-4, and in order to render 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

- (a) Slag and Fuel Specifications
  - (1) The sulfur content of the No. 2 fuel oil shall not exceed 0.5 percent by weight.

- (2) The sulfur content of the waste fuel oil shall not exceed 0.50 percent by weight.
- (3) The sulfur content of the Blast Furnace slag shall not exceed 1.50 percent by weight, with compliance demonstrated on a calendar month average.
- (4) The SO<sub>2</sub> emissions from the dryer/mixer shall not exceed 0.74 pounds per ton of Blast Furnace slag processed in the aggregate mix.
- (5) The sulfur content of the Steel slag shall not exceed 0.66 percent by weight, with compliance demonstrated on a calendar month average.
- (6) The SO<sub>2</sub> emissions from the dryer/mixer shall not exceed 0.0014 pounds per ton of Steel slag processed in the aggregate mix.

(b) Single Fuel Usage Limitations

When combusting only one type of fuel per twelve (12) consecutive month period in the dryer/mixer burner the usage of fuel shall be limited as follows:

- (1) Natural gas usage shall not exceed 876 million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (2) No. 2 fuel oil usage shall not exceed 1,093,014 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (3) Waste oil usage shall not exceed 1,055,836 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (4) Blast Furnace and steel slag usage shall not exceed 150,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) Multiple Fuel Usage Limitations

When combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner and in conjunction with the use of blast furnace and steel slag in the aggregate mix, emissions from the dryer/mixer shall be limited as follows:

SO<sub>2</sub> emissions from the dryer/mixer shall not exceed 99 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits, combined with the potential to emit SO<sub>2</sub> from all other emission units at this source, shall limit the source-wide total potential to emit of SO<sub>2</sub> to less than 100 tons per twelve (12) consecutive month period, and shall render 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-2 (PSD) not applicable.

D.1.5 Hazardous Air Pollutants (HAPs) [326 IAC 2-8-4][326 IAC 2-4.1]

Pursuant to 326 IAC 2-8-4, and in order to limit HAP emissions from the dryer/mixer, the Permittee shall comply with the following:

- (a) HCl emissions from the dryer/mixer shall not exceed 0.0066 pounds of HCl per gallon of waste oil burned.
- (b) The chlorine content of the waste oil shall not exceed 0.1 percent by weight.

Compliance with these limits, combined with the limited PTE from all other emission units at this source, shall limit the source-wide total potential to emit of any single HAP to less than 10 tons per 12 consecutive month period, and any combination of HAPs to less than 25 tons per 12 consecutive month period, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) not applicable.

**D.1.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

---

A Preventive Maintenance Plan is required for this facility and any control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

**Compliance Determination Requirements**

**D.1.7 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]**

---

- (a) In order to demonstrate compliance with Condition D.1.1(b), the Permittee shall perform PM testing of the dryer/mixer, utilizing methods approved by the Commissioner, at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.
- (b) In order to demonstrate compliance with Conditions D.1.3(b) and D.1.3(c), the Permittee shall perform PM10 and PM2.5 testing on the dryer/mixer utilizing methods approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable PM.

**D.1.8 Particulate Matter (PM and PM10) Control**

---

- (a) In order to comply with Conditions D.1.1 and D.1.3, the baghouse for particulate control shall be in operation and control emissions from the dryer/mixer at all times when the dryer/mixer is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

**D.1.9 Sulfur Dioxide Emissions and Sulfur Content**

---

- (a) Compliance with the fuel limitations established in Conditions D.1.4(a),(b) and (c) shall be determined utilizing one of the following options.
  - (1) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed 0.5 pounds per million British thermal units heat input when combusting No. 2 distillate fuel oil, or 1.6 pounds per million British thermal units heat input when combusting waste oil, by:
    - (A) Providing vendor analysis of heat content and sulfur content of the fuel delivered, if accompanied by a vendor certification; or
    - (B) Analyzing the fuel sample to determine the sulfur content of the fuel via

the procedures in 40 CFR 60, Appendix A, Method 19.

- (i) Fuel samples may be collected from the fuel tank immediately after the fuel tank is filled and before any fuel is combusted; and
  - (ii) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (2) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 100 MMBtu per hour burner, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified above shall not be refuted by evidence of compliance pursuant to the other method.

- (b) Compliance with the blast furnace and steel slag limitations established in Conditions D.1.4(a),(b) and (c) shall be determined utilizing one of the following options.
- (1) Providing vendor analysis of the blast furnace and steel slag delivered, if accompanied by a vendor certification; or
  - (2) Analyzing a sample of the blast furnace slag and steel slag delivery to determine the sulfur content of the blast furnace and steel slag, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.
  - (3) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 100 MMBtu per hour burner, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6, or other procedures approved by IDEM, OAQ.

A determination of noncompliance pursuant to any of the methods specified above shall not be refuted by evidence of compliance pursuant to the other method.

#### D.1.10 Multiple Fuel Usage/Sulfur Dioxide Emissions

---

- (a) When combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner, the Permittee shall use the following equation to determine the tons of SO<sub>2</sub> emitted per twelve (12) consecutive month period:

- (1) Sulfur Dioxide Emission Calculation

$$S = \frac{G(E_G) + O(E_O) + W(E_W) + B(E_B) + T(E_T)}{2,000 \text{ lbs/ton}}$$

where:

S = tons of sulfur dioxide emissions for a 12-month consecutive period

G = million cubic feet of natural gas used in the last 12 months

O = gallons of No. 2 fuel oil used in last 12 months

W = gallons of Waste oil used in last 12 months

B = tons of Blast Furnace slag used in last 12 months

T = tons of Steel slag used in last 12 months

E<sub>G</sub> = 0.60 lb/million cubic feet of natural gas

E<sub>O</sub> = 71.00 lb/1000 gallons of No. 2 fuel oil

E<sub>W</sub> = 147 lb/1000 gallons of Waste oil

E<sub>B</sub> = 0.74 lb/ton of Blast Furnace slag used

E<sub>T</sub> = 0.0014 lb/ton of Steel slag used

#### D.1.11 Chlorine and Asbestos Content

---

The Permittee shall demonstrate compliance with the waste oil chlorine content limit established in Condition D.1.5(b), by providing a vendor analysis of each fuel delivery accompanied by a vendor certification.

### Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

#### D.1.12 Visible Emissions Notations

---

- (a) Visible emission notations of the dryer/mixer stack (S-1) exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. An abnormal visible emission notation is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

#### D.1.13 Parametric Monitoring

---

The Permittee shall record the pressure drop across the baghouse used in conjunction with the dryer/mixer, at least once per day when the dryer/mixer is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of five tenths (0.5) and six and five tenths (6.5) inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated or replaced at least once every six (6) months.

#### D.1.14 Broken or Failed Bag Detection

---

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies

as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### **D.1.15 Record Keeping Requirements**

---

- (a) To document the compliance status with Conditions D.1.1(a), and D.1.2(a), the Permittee shall keep monthly records of the amount of asphalt processed through the dryer/mixer.
  
- (b) To document the compliance status with Conditions D.1.4 (a),(b) and (c), the Permittee shall maintain records in accordance with (1) through (7) below. Records necessary to determine compliance shall be available no later than 30 days after the end of each compliance period.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Actual blast furnace and steel slag usage and sulfur content for all blast furnace and steel slag used at the source since the last compliance determination period;
  - (3) A certification, signed by the owner or operator, that the records of the blast furnace and steel slag supplier certifications represent all of the blast furnace and steel slag used during the period; and
  - (4) If the blast furnace and steel slag supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:
    - (i) Blast furnace and steel slag supplier certifications;
    - (ii) The name of the blast furnace and steel slag suppliers; and
    - (iii) A statement from the blast furnace and steel slag supplier that certifies the sulfur content of the blast furnace and steel slag.
  - (5) Actual sulfur content, heat content, fuel usage, and equivalent sulfur dioxide emission rates for each fuel used at the source since the last compliance determination period;
  - (6) A certification, signed by the owner or operator, that the records of the fuel oil supplier certifications represent all of the fuel combusted during the period; and
  - (7) If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:
    - (i) The name of the fuel supplier; and
    - (ii) A statement from the fuel supplier that certifies the sulfur content of the No. 2 fuel oil and waste oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit,

from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (c) To document the compliance status with Condition D.1.4 and D.1.5(a), the Permittee shall maintain records in accordance with (1) through (4) below. Records necessary to determine compliance shall be available no later than 30 days after the end of each compliance period.
- (1) Calendar dates covered in the compliance determination period;
  - (2) Actual waste oil usage, chlorine content, and equivalent hydrogen chloride emission rate for waste oil used at the source since the last compliance determination period;
  - (3) A certification, signed by the owner or operator, that the records of the fuel oil supplier certifications represent all of the fuel combusted during the period; and
  - (4) If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:
    - (i) The name of the fuel supplier; and
    - (ii) A statement from the fuel supplier that certifies the chlorine content of the waste oil.
- (d) To document the compliance status with Condition D.1.12, the Permittee shall maintain records of visible emission notations of the dryer/mixer stack (S-1) exhaust once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day).
- (e) To document the compliance status with Condition D.1.13, the Permittee shall maintain records once per day of the pressure drop during normal operation. The Permittee shall include in its daily record when the pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the process did not operate that day).
- (f) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

#### D.1.16 Reporting Requirements

---

- (a) A quarterly summary of the information to document compliance status with Conditions D.1.1(a), D.1.3(a) and D.1.4 shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (d) One (1) cold-mix (cutback) asphalt storage stockpile, identified as F-4, consisting of medium cure mix with equal to or less than 38 percent fuel oil in cutback, with a maximum storage capacity of 2,000 tons.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-5-2]

Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), the use of cutback asphalt or asphalt emulsion shall not contain more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:

- (a) Penetrating prime coating
- (b) Stockpile storage
- (c) Application during the months of November, December, January, February and March.

#### D.2.2 Volatile Organic Compounds (VOC) [326 IAC 2-2] [326 IAC 2-8-4]

- (a) Pursuant to 326 IAC 2-8-4, the VOC emissions from the sum of the binders shall not exceed 74.4 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) Liquid binders used in the production of cold mix asphalt shall be defined as follows:
  - (1) Cut back asphalt rapid cure, containing a maximum of 25.3% of the liquid binder by weight of VOC solvent and 95% by weight of VOC solvent evaporating.
  - (2) Cut back asphalt medium cure, containing a maximum of 28.6% of the liquid binder by weight of VOC solvent and 70% by weight of VOC solvent evaporating.
  - (3) Cut back asphalt slow cure, containing a maximum of 20% of the liquid binder by weight of VOC solvent and 25% by weight of VOC solvent evaporating.
  - (4) Emulsified asphalt with solvent, containing a maximum of 15% of liquid binder by weight of VOC solvent and 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be 7% or less of the total emulsion by volume
  - (5) Other asphalt with solvent binder, containing a maximum 25.9% of the liquid binder of VOC solvent and 2.5% by weight of the VOC solvent evaporating
- (c) The liquid binder used in cold mix asphalt production shall be limited as follows:

- (1) The amount of VOC solvent used in rapid cure cutback asphalt shall not exceed 78.3 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (2) The amount of VOC solvent used in medium cure cutback asphalt shall not exceed 106.3 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (3) The amount of VOC solvent used in slow cure cutback asphalt shall not exceed 297.6 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (4) The amount of VOC solvent used in emulsified asphalt shall not exceed 160.3 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (5) The amount of VOC solvent used in all other asphalt shall not exceed 2975.9 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (6) The VOC solvent allotments in (1) through (5) above shall be adjusted when more than one type of binder is used per twelve (12) consecutive month period with compliance determined at the end of each month. In order to determine the tons of VOC emitted per each type of binder, use the following formula and divide the tons of VOC solvent used for each type of binder by the corresponding adjustment factor listed in the table that follows.

$$\text{VOC emitted (tons/yr)} = \frac{\text{VOC solvent used for each binder (tons/yr)}}{\text{Adjustment factor}}$$

Type of binder	adjustment factor
cutback asphalt rapid cure	1.053
cutback asphalt medium cure	1.429
cutback asphalt slow cure	4.0
emulsified asphalt	2.155
other asphalt	40

When combined with the limited potential to emit VOC from all other emission units at this source, compliance with these limits shall limit the source-wide total potential to emit of VOC to less than 100 tons per 12 consecutive month period, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (PSD) not applicable.

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

#### **D.2.3 Record Keeping Requirements**

- 
- (a) To document the compliance status with Condition D.2.2, the Permittee shall record and maintain complete monthly records of the information listed in items (1) through (4) below:
    - (1) Calendar dates covered in the compliance determination period;

- (2) Liquid asphalt binder usage in the production of cold mix asphalt since the last compliance determination period.
- (3) VOC solvent content by weight of the liquid binder used in the production of cold mix asphalt since the last compliance determination period.
- (4) Amount of VOC solvent used in the production of cold mix asphalt and the amount of VOC emitted since the last compliance determination period.

Records that may be used to document the information included in (1) through (4) may include: delivery tickets, manufacturer's data, material safety data sheets (MSDS), and other documents necessary to verify the type and amount used. Test results of ASTM tests for asphalt cutback and asphalt emulsion may be used to document volatilization.

- (b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

#### D.2.4 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.2.2 shall be submitted no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description [326 IAC 2-8-4(10)]:

- (a) One (1) aggregate mixer/dryer, identified as S-1, constructed in 1995, with a maximum capacity of 350 tons per hour, equipped with one (1) 100 million British thermal units per hour (MMBtu) aggregate dryer with particulate matter emissions controlled by a primary settling chamber and a baghouse in series, exhausting through stack S-1. The burner will be fired by natural gas or waste oil with No. 2 fuel oil used as a standby fuel. This source does not use shingles, but does use blast furnace and steel slag in the asphalt aggregate mix.
- (b) One (1) 2.115 million British Thermal Units (MMBtu) per hour natural gas fired liquid asphalt heater, identified as S-2, exhausting to stack S-2.
- (c) Material handling, screening and conveying operations, constructed in 1995, uncontrolled and exhausting to the outside atmosphere, consisting of the following:
  - (1) Six (6) raw aggregate feed bins (for aggregate going into batch plant), identified as ID#1AFB, #2AFB, #3AFB, #4AFB, #5AFB and #6AFB, each with a capacity of 30 tons.
  - (2) Two (2) drag conveyors, identified as #1DC and #2DC, each with a capacity of 400 tons per hour.
  - (3) One (1) aggregate feeder conveyor, with a capacity of 400 tons per hour.
  - (4) One (1) drag slat conveyor, with a capacity of 400 tons per hour.
  - (5) One (1) recycle conveyor, with a capacity of 400 tons per hour.
  - (6) One (1) screen deck, with a capacity of 400 tons per hour.

Under 40 CFR 60, Subpart I, this hot mix asphalt plant is considered an affected facility.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4(1)]

#### E.1.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, except as otherwise specified in 40 CFR 60, Subpart I.
- (b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

E.1.2 New Source Performance Standards (NSPS) for Hot Mix Asphalt Facilities [40 CFR Part 60, Subpart I] [326 IAC 12]

---

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart I (included as Attachment B of this permit), which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR Part 60, Subpart I:

- (a) 40 CFR 60.90
- (b) 40 CFR 60.91
- (c) 40 CFR 60.92
- (d) 40 CFR 60.93

E.1.3 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

---

The Permittee shall perform the stack testing required under NSPS 40 CFR 60, Subpart I, utilizing methods as approved by the Commissioner to document compliance with Condition E.1.2. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: Niblock Excavating, Inc.  
Source Address: 52019 County Road 23, Bristol, Indiana 46507  
FESOP Permit No.: F039-30029-03296

<p><b>This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.</b></p> <p>Please check what document is being certified:</p> <p><input type="checkbox"/> Annual Compliance Certification Letter</p> <p><input type="checkbox"/> Test Result (specify)_____</p> <p><input type="checkbox"/> Report (specify)_____</p> <p><input type="checkbox"/> Notification (specify)_____</p> <p><input type="checkbox"/> Affidavit (specify)_____</p> <p><input type="checkbox"/> Other (specify)_____</p>
---

<p>I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.</p>
<p>Signature: _____</p>
<p>Printed Name: _____</p>
<p>Title/Position: _____</p>
<p>Date: _____</p>

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
Phone: (317) 233-0178  
Fax: (317) 233-6865**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: Niblock Excavating, Inc.  
Source Address: 52019 County Road 23, Bristol, Indiana 46507  
FESOP Permit No.: F039-30029-03296

**This form consists of 2 pages**

**Page 1 of 2**

- |  |
|--|
| <p><input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12)</p> <ul style="list-style-type: none"><li>• The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and</li><li>• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16</li></ul> |
|--|

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**FESOP Quarterly Report**

Source Name: Niblock Excavating, Inc.  
Source Address: 52019 County Road 23, Bristol, Indiana 46507  
FESOP Permit No.: F039-30029-03296  
Facility: Drum dryer/mixer  
Parameter: Hot mix asphalt production  
Limit: The asphalt production rate shall not exceed 1,000,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	Hot Mix Asphalt Produced This Month (tons)	Hot Mix Asphalt Produced Previous 11 Months (tons)	12 Month Total Hot Mix Asphalt Produced (tons)
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**Fuel / Slag Usage Quarterly Report**

**Page 1 of 2**

Source Name: Niblock Excavating, Inc.  
Source Address: 52019 County Road 23, Bristol, Indiana 46507  
FESOP Permit No.: F039-30029-03296  
Facility: Dryer/mixer  
Parameter: Multiple fuel usage / Sulfur dioxide (SO<sub>2</sub>) emissions  
Limit: SO<sub>2</sub> emissions from the dryer/mixer shall not exceed 99 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. When combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner, the Permittee shall use the following equation to determine the tons of SO<sub>2</sub> emitted per twelve (12) consecutive month period:

$$S = \frac{G(E_G) + O(E_O) + W(E_W) + B(E_B) + T(E_T)}{2,000 \text{ lbs/ton}}$$

where:

S = tons of sulfur dioxide emissions for a 12-month consecutive period  
G = million cubic feet of natural gas used in the last 12 months  
O = gallons of No. 2 fuel oil used in last 12 months  
W = gallons of Waste oil used in last 12 months  
B = tons of Blast Furnace slag used in last 12 months  
T = tons of Steel slag used in last 12 months  
E<sub>G</sub> = 0.60 lb/million cubic feet of natural gas  
E<sub>O</sub> = 71.00 lb/1000 gallons of No. 2 fuel oil  
E<sub>W</sub> = 147 lb/1000 gallons of Waste oil  
E<sub>B</sub> = 0.74 lb/ton of Blast Furnace slag used  
E<sub>T</sub> = 0.0014 lb/ton of Steel slag used

**Multiple Fuel / Slag Usage Quarterly Report**

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month		Column 1	Column 2	Column 1 + Column 2	Equation Results
	Fuel Types / Slag (units)	Usage This Month	Usage Previous 11 Months	Usage 12 Month Total	Emissions (tons per 12 months)
Month 1	Natural Gas (million cubic feet)				Sulfur Dioxide =
	No. 2 Fuel Oil (gallons)				
	Waste Fuel Oil (gallons)				
	Blast Furnace Slag (tons)				
	Steel Slag Usage (tons)				
Month 2	Natural Gas (million cubic feet)				Sulfur Dioxide =
	No. 2 Fuel Oil (gallons)				
	Waste Fuel Oil (gallons)				
	Blast Furnace Slag (tons)				
	Steel Slag Usage (tons)				
Month 3	Natural Gas (million cubic feet)				Sulfur Dioxide =
	No. 2 Fuel Oil (gallons)				
	Waste Fuel Oil (gallons)				
	Blast Furnace Slag (tons)				
	Steel Slag Usage (tons)				

No deviation occurred in this reporting period. Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_

Deviation/s occurred in this reporting period. Title / Position: \_\_\_\_\_ Phone: \_\_\_\_\_

Deviation has been reported on: \_\_\_\_\_ Signature: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 COMPLIANCE AND ENFORCEMENT BRANCH**

**FESOP Quarterly Report - Single Liquid Binder VOC Solvent**

Source Name: Niblock Excavating, Inc.  
 Source Address: 52019 County Road 23, Bristol, Indiana 46507  
 FESOP Permit No.: F039-30029-03296  
 Facility: Cold-mix (stockpile mix) asphalt manufacturing operations and storage piles  
 Parameter: Cutback or emulsified asphalt VOC solvent usage  
 Limit: Cutback asphalt rapid cure liquid binder usage shall not exceed 78.3 tons of VOC solvent per twelve (12) consecutive month period. Cutback asphalt medium cure liquid binder usage shall not exceed 106.3 tons of VOC solvent per twelve (12) consecutive month period. Cutback asphalt slow cure liquid binder usage shall not exceed 297.6 tons of VOC solvent per twelve (12) consecutive month period. Emulsified asphalt with solvent liquid binder usage shall not exceed 160.3 tons of VOC solvent per twelve (12) consecutive month period. Other asphalt with solvent liquid binder shall not exceed 2975.9 tons of VOC solvent per twelve (12) consecutive month period.

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
 Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
 Title / Position: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 COMPLIANCE AND ENFORCEMENT BRANCH**

**Multiple Liquid Binder Solvent Quarterly Report**

Source Name: Niblock Excavating, Inc.  
 Source Address: 52019 County Road 23, Bristol, Indiana 46507  
 FESOP Permit No.: F039-30029-03296  
 Facility: Cold-mix (stockpile mix) asphalt manufacturing operations and storage piles  
 Parameter: VOC emissions  
 Limit: VOC emissions from the sum of the binders shall not exceed 74.4 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Year: \_\_\_\_\_

Month	Type of Liquid binder	Solvent Usage This Month (tons)	Divisor	VOC emissions This Month (tons) for each solvent	VOC emissions This Month (tons)	VOC emissions Previous 11 Months (tons)	This month + Previous 11months =VOC emissions 12 Month Total (tons)
Month 1	Cutback asphalt rapid cure		1.053				
	Cutback asphalt medium cure		1.429				
	Cutback asphalt slow cure		4.0				
	Emulsified asphalt		2.155				
	other asphalt		40				
Month 2	Cutback asphalt rapid cure		1.053				
	Cutback asphalt medium cure		1.429				
	Cutback asphalt slow cure		4.0				
	Emulsified asphalt		2.155				
	other asphalt		40				
Month 3	Cutback asphalt rapid cure		1.053				
	Cutback asphalt medium cure		1.429				
	Cutback asphalt slow cure		4.0				
	Emulsified asphalt		2.155				
	other asphalt		40				

- No deviation occurred in this reporting period.
- Deviation/s occurred in this reporting period.
- Deviation has been reported on:

Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_

Title / Position: \_\_\_\_\_ Phone: \_\_\_\_\_

Signature: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**FESOP Quarterly Report**

Source Name: Niblock Excavating, Inc.  
Source Address: 52019 County Road 23, Bristol, Indiana 46507  
FESOP Permit No.: F039-30029-03296  
Facility: Dryer/Mixer  
Parameter: Blast Furnace and Steel Slag Usage  
Limit: Blast Furnace and Steel slag usage shall not exceed 150,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Niblock Excavating, Inc.  
Source Address: 52019 County Road 23, Bristol, Indiana 46507  
FESOP Permit No.: F039-30029-03296

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked <math>\Delta</math>No deviations occurred this reporting period@.</p>	
<p><input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.</p>	
<p><input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD</p>	
<p><b>Permit Requirement</b> (specify permit condition #)</p>	
<p><b>Date of Deviation:</b></p>	<p><b>Duration of Deviation:</b></p>
<p><b>Number of Deviations:</b></p>	
<p><b>Probable Cause of Deviation:</b></p>	
<p><b>Response Steps Taken:</b></p>	
<p><b>Permit Requirement</b> (specify permit condition #)</p>	
<p><b>Date of Deviation:</b></p>	<p><b>Duration of Deviation:</b></p>
<p><b>Number of Deviations:</b></p>	
<p><b>Probable Cause of Deviation:</b></p>	
<p><b>Response Steps Taken:</b></p>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

## **Appendix A**

**Niblock Excavating, Inc.  
52019 County Road 23  
Bristol, Indiana 46507**

**Permit No. F039-30029-03296**

**APPENDIX A**  
**Fugitive Dust Plan**

Niblock Excavating & Asphalt  
52019 County Road 23 Bristol, IN 46507  
Plant Contact: Dale Phillips, Telephone 574-848-5391

Water will be applied on an "as-needed" basis to prevent fugitive dust from crossing the property lines.

2. Identification of fugitive emission processes and proposed fugitive dust control methods:
  - 2.1 Roads and Parking areas are controlled by flushing with water.
  - 2.2 Aggregate Storage piles are controlled by treatment with water.
  - 2.3 Aggregate drying and mixing dust is controlled with a 99.9% Control Efficiency.
3. Map of plant layout is located in the plant office.
4. Vehicle Mix: 85% of traffic at this facility is dump trucks with approximately 20 ton payload capacity.
5. Type and Quantity of Materials Stored: Aggregates stored on-site consist of sand, gravel, crushed stone and will be handled at a maximum rate of approximately 350 Tons/Hour.
6. Equipment: Front-end loaders are used to maintain roads, yards, and storage piles.
7. Dust Suppressant Material: Water is used. Water has an estimated control efficiency of 94.9%.
8. Equipment Maintenance Plan: Loaders are serviced and maintained regularly according to the manufacturer's recommendation. The Baghouse (drying and mixing dust control) is checked daily and annually according to our Preventative Maintenance Plan. Performance testing occurs with a frequency as defined by the FESOP for this facility.

Filed with IDEM September 12, 2006.

## **Appendix B**

**Niblock Excavating, Inc.  
52019 County Road 23  
Bristol, Indiana 46507**

**Permit No. F039-30029-03296**

**Title 40: Protection of Environment**

**PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES**

**Subpart I—Standards of Performance for Hot Mix Asphalt Facilities**

**§ 60.90 Applicability and designation of affected facility.**

(a) The affected facility to which the provisions of this subpart apply is each hot mix asphalt facility. For the purpose of this subpart, a hot mix asphalt facility is comprised only of any combination of the following: dryers; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler, systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems.

(b) Any facility under paragraph (a) of this section that commences construction or modification after June 11, 1973, is subject to the requirements of this subpart.

[42 FR 37936, July 25, 1977, as amended at 51 FR 12325, Apr. 10, 1986]

**§ 60.91 Definitions.**

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) *Hot mix asphalt facility* means any facility, as described in §60.90, used to manufacture hot mix asphalt by heating and drying aggregate and mixing with asphalt cements.

[51 FR 12325, Apr. 10, 1986]

**§ 60.92 Standard for particulate matter.**

(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any affected facility any gases which:

(1) Contain particulate matter in excess of 90 mg/dscm (0.04 gr/dscf).

(2) Exhibit 20 percent opacity, or greater.

[39 FR 9314, Mar. 8, 1974, as amended at 40 FR 46259, Oct. 6, 1975]

**§ 60.93 Test methods and procedures.**

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.92 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf).

(2) Method 9 and the procedures in §60.11 shall be used to determine opacity.

[54 FR 6667, Feb. 14, 1989]

Printed from the internet on December 21, 2010.

**Indiana Department of Environmental Management  
Office of Air Quality**

**Technical Support Document (TSD) for a General Asphalt (FESOP)  
Transitioning to a Federally Enforceable State Operating Permit (FESOP) Renewal**

**Source Background and Description**

<b>Source Name:</b>	<b>Niblock Excavating, Inc.</b>
<b>Source Location:</b>	<b>52019 County Road 23, Bristol, Indiana 46507</b>
<b>County:</b>	<b>Elkhart</b>
<b>SIC Code:</b>	<b>2951</b>
<b>Permit Renewal No.:</b>	<b>F039-30029-03296</b>
<b>Permit Reviewer:</b>	<b>Janet Mobley</b>

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Niblock Excavating, Inc. relating to the operation of a stationary drum hot-mix asphalt plant. On December 17, 2010, Niblock Excavating, Inc. submitted an application to the OAQ requesting to renew its General Asphalt FESOP operating permit. IDEM, OAQ is no longer issuing the General FESOP permit until the permit can be updated to coincide with current environmental standards and regulations. Therefore, Niblock Excavating, Inc. will be issued a Federally Enforceable State Operating Permit (FESOP) operating permit. Niblock Excavating was issued its first FESOP Renewal (F039-23176-03296) on October 30, 2006.

**Permitted Emission Units and Pollution Control Equipment**

The Office of Air Quality (OAQ) has reviewed an application, submitted by Niblock Excavating, Inc. on December 17, 2010, relating to the renewal of a General FESOP. IDEM, OAQ is no longer issuing the General FESOP permit until the permit can be updated to coincide with current environmental standards and regulations. Therefore, Niblock Excavating, Inc. will be issued a Federally Enforceable State Operating Permit (FESOP). This source does not use shingles, but does use blast furnace and steel slag in the asphalt aggregate mix and does manufacture and/or produce cold-mix asphalt. The mixer/dryer had originally been permitted at 400 tons per hour, but the source is correcting this to 350 tons per hour in this renewal.

The source consists of the following permitted emission units:

- (a) One (1) drum hot-mix asphalt plant consisting of the following:

One (1) aggregate mixer/dryer, identified as S-1, constructed in 1995, with a maximum capacity of 350 tons per hour, equipped with one (1) 100 million British thermal units per hour (MMBtu) aggregate dryer with particulate matter emissions controlled by a primary settling chamber and a baghouse in series, exhausting through stack S-1. The burner will be fired by natural gas or waste oil with No. 2 fuel oil used as a standby fuel. This source does not use shingles, but does use blast furnace and steel slag in the asphalt aggregate mix.

Under 40 CFR 60, Subpart I, this hot mix asphalt plant is considered an affected facility.

- (b) One (1) 2.115 million British Thermal Units (MMBtu) per hour natural gas fired liquid asphalt heater, identified as S-2, exhausting to stack S-2.

Under 40 CFR 60, Subpart I, this hot mix asphalt plant is considered an affected facility.

- (c) Material handling, screening and conveying operations, constructed in 1995, Uncontrolled and exhausting to the outside atmosphere, consisting of the following:
- (1) Six (6) raw aggregate feed bins (for aggregate going into batch plant), identified as ID#1AFB, #2AFB, #3AFB, #4AFB, #5AFB and #6AFB each with a capacity of 30 tons.
  - (2) Two (2) drag conveyors, identified as #1DC and #2DC, each with a capacity of 400 tons per hour.
  - (3) One (1) aggregate feeder conveyor, with a capacity of 400 tons per hour.
  - (4) One (1) drag slat conveyor, with a capacity of 400 tons per hour.
  - (5) One (1) recycle conveyor, with a capacity of 400 tons per hour.
  - (6) One (1) screen deck, with a capacity of 400 tons per hour.

The above units are considered as part of an affected facility under 40 CFR 60, Subpart I.

- (d) One (1) cold-mix (cutback) asphalt storage stockpile, identified as F-4, consisting of medium cure mix with equal to and less than 38 percent fuel oil in cutback, with a maximum storage capacity of 2,000 tons.
- (e) Four (4) liquid asphalt storage tanks, including:
- (1) One (1) 12,000 gallon storage tank, identified as S-3.
  - (2) One (1) 12,000 gallon storage tank, identified as S-4.
  - (3) One (1) 20,000 gallon storage tank, identified as S-5.
  - (4) One (1) 15,000 gallon storage tank, identified as S-6.
- (f) One (1) 20,000 gallon waste oil storage tank, identified as T-1.
- (g) Two (2) distillate No. 2 fuel oil storage tanks, including:
- (1) One (1) 8,000 gallon storage tank, identified as S-6.
  - (2) One (1) 10,000 gallon storage tank, identified as S-7.
- (h) Aggregate storage piles with a maximum storage capacity of 500,000 tons.
- (i) Recycled asphalt pavement storage piles with a maximum storage capacity of 80,000 tons.
- (j) Three (3) hot mix asphalt cement silos, with 280 ton capacity, each.
- (k) One (1) lime silo, identified as S-1, with 150 ton capacity.

<b>Insignificant Activities</b>
---------------------------------

The source also consists of the following insignificant activities:

- (a) Unpaved roads (no paved roads) and parking lots with public access. [326 IAC 6-4]

**Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit**

The source does not have emission units that were constructed and/or are operating without a permit during this review.

**Emission Units and Pollution Control Equipment Removed From the Source**

The source has not removed emission units from the source since the last permit.

**Existing Approvals**

Since the issuance of the General Asphalt FESOP No. F039-23176-03296 on October 30, 2006, the source has not had any new construction or additional approvals issued.

Due to this application, the source is transitioning from a General Asphalt FESOP to a FESOP.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

**Enforcement Issue**

There are no enforcement actions pending at this existing source.

**Emission Calculations**

See Appendix A of this document for detailed emission calculations.

**County Attainment Status**

The source is located in Elkhart County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Attainment effective July 19, 2007, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Not designated.

<sup>1</sup>Attainment effective October 18, 2000, for the 1-hour ozone standard for the South Bend-Elkhart area, including Elkhart County, and is a maintenance area for the 1-hour National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X\*. The 1-hour standard was revoked effective June 15, 2005.

Unclassifiable or attainment effective April 5, 2005, for PM2.5.

- (a) Ozone Standards  
Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Elkhart County has been designated as

attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) **PM2.5**  
Elkhart County has been classified as attainment for PM2.5. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions, and the effective date of these rules was July 15, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM10 emissions as a surrogate for PM2.5 emissions until 326 IAC 2-2 is revised.
- (c) **Other Criteria Pollutants**  
Elkhart County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

#### **Fugitive Emissions**

This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, however, there is an applicable New Source Performance Standard that was in effect on August 7, 1980, therefore fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit

#### **Portable Source**

This was originally categorized as a portable source, however, this source did not relocate during the permit term. Therefore, this source is now considered a stationary source. The source ID will remain 039-03296 to ensure the history of the source is maintained in IDEM's tracking systems.

#### **Unrestricted Potential Emissions**

Appendix A.1 of this TSD reflects the unrestricted potential emissions of the source.

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) of PM10, PM2.5, SO2 and CO, each, is greater than one hundred (100) tons per year. The PTE of all other regulated criteria pollutants are less than one hundred (100) tons per year. The source would have been subject to the provisions of 326 IAC 2-7. However, the source will be issued a Federally Enforceable State Operating Permit (FESOP) Renewal (326 IAC 2-8), because the source will continue to limit emissions to less than the Title V major source threshold levels.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) of any single HAP is greater than ten (10) tons per year and the PTE of a combination of HAPs is greater than twenty-five (25) tons per year. Because the potential to emit HAPs is greater than ten (10) tons per year for a single HAP the source shall limit the source-wide total potential to emit of any single HAP to less than 10 tons per 12 consecutive month period, and any combination of HAPs to less than 25 tons per 12 consecutive month period, and twenty-five (25) tons per year of total HAPs. Therefore, this source is still an area source under Section 112 of the Clean Air Act (CAA).

#### **Potential to Emit After Issuance**

The source has opted to remain a FESOP source. The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this FESOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)								
	PM	PM10*	PM 2.5	SO <sub>2</sub>	NOx	VOC	CO	Total HAP	Worst Single HAP
<b>Ducted Emissions</b>									
Dryer Fuel Combustion (worst case)	16.89	13.46	13.46	38.80	83.22	2.41	36.79	4.74	3.48 (hydrogen chloride)
Dryer/mixer and batch tower (Process)	188.18	80.01	89.79	29.00	27.50	16.00	65.00	5.33	1.55 (formaldehyde)
Dryer/Mixer Slag Processing	0	0	0	55.50	0	0	0	0	0
Hot Oil Heater Fuel Combustion	0.13	0.22	0.22	4.70	1.32	0.05	0.78	0.02	0.017 (hexane)
<b>Worst Case Emissions**</b>	<b>188.32</b>	<b>80.22</b>	<b>90.01</b>	<b>99.00</b>	<b>84.54</b>	<b>16.05</b>	<b>65.78</b>	<b>5.35</b>	<b>3.48</b> (hydrogen chloride)
<b>Fugitive Emissions</b>									
Asphalt Load-Out, Silo Filling, On-Site Yard	0.55	0.55	0.55	0	0	8.57	1.44	0.14	0.04 (formaldehyde)
Material Storage Piles	3.41	1.19	1.19	0	0	0	0	0	0
Material Processing and Handling	3.38	1.60	0.24	0	0	0	0	0	0
Material Crushing, Screening, and Conveying	16.62	6.07	6.07	0	0	0	0	0	0
Unpaved Roads	36.72	9.36	0.94	0	0	0	0	0	0
Cold-Mix Asphalt Production	0	0	0	0	0	74.4	0	19.41	4.50 (xylenes)
Gasoline Fuel Transfer and Dispensing	0	0	0	0	0	0.0	0	0.00	0.00 (xylenes)
Volatile Organic Liquid Storage Vessels	0	0	0	0	0	negl	0	negl	negl
<b>Total Fugitive Emissions</b>	<b>60.68</b>	<b>18.78</b>	<b>8.99</b>	<b>0</b>	<b>0.00</b>	<b>82.97</b>	<b>1.44</b>	<b>19.55</b>	<b>4.50 (xylenes)</b>
<b>Total Limited/Controlled Emissions</b>	<b>249.00</b>	<b>99.00</b>	<b>99.00</b>	<b>99.00</b>	<b>84.54</b>	<b>99.02</b>	<b>67.22</b>	<b>24.90</b>	<b>0.67</b>
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	NA	NA	NA	NA	NA	NA	NA
negl. = negligible *Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". Worst Case Fuel combustion is based on the fuel with the highest emissions for each specific pollutant. **Worst Case Emissions (tons/year) = Worst case Emissions from Dryer Fuel Combustion and Dryer/Mixer +Worst Case Dryer/Mixer Slag Processing + Worst case Emissions from Hot Oil Heater Fuel combustion. Fuel component percentages provided by the source.									

## FESOP STATUS

- (a) This existing source is not a Title V major stationary source, because the potential to emit criteria pollutants from the entire source will continue to be limited to less than the Title V major source threshold levels. In addition, this existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the potential to emit HAPs is greater than ten (10) tons per year for a single HAP the source shall limit the source-wide total potential to emit of any single HAP to less than 10 tons per 12 consecutive month period, and any combination of HAPs to less than 25 tons per 12 consecutive month period, and twenty-five (25) tons per year of total HAPs. Therefore, this existing source is still an area source under Section 112 of the Clean Air Act and is still subject to the provisions of 326 IAC 2-8 (FESOP).

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), the source shall comply with the following:

- (1) Pursuant to 326 IAC 2-8-4, the PM10, PM2.5, VOC and CO emissions from the hot-mix asphalt plant dryer/mixer burner, and all other associated emission units at this source, shall be limited as follows:
- (a) The asphalt production rate shall not exceed 1,000,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
  - (b) PM10 emissions from the dryer/mixer shall not exceed 0.160 pounds of PM10 per ton of asphalt produced.
  - (c) PM2.5 emissions from the dryer/mixer shall not exceed 0.180 pounds of PM2.5 per ton of asphalt produced.
  - (d) CO emissions from the dryer/mixer shall not exceed 0.130 pounds of CO per ton of asphalt produced.
  - (e) The VOC emissions from the dryer/mixer shall not exceed 0.032 pounds per ton of asphalt processed.

Compliance with these limits, combined with the limited potential to emit PM10, PM2.5, CO and VOC, from all other emission units at this source, shall limit the source-wide total potential to emit of PM10, PM2.5, CO, and VOC to less than one hundred (100) tons per twelve (12) consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-2 (PSD) not applicable.

In addition, compliance with these limits shall limit the VOC emissions from the dryer/mixer to less than twenty-five (25) tons per twelve (12) consecutive month period and shall render 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities) not applicable.

- (2) Pursuant to 326 IAC 2-8-4, the SO2 emissions from the dryer/mixer burner of the asphalt plant shall be limited as follows:
- (a) The sulfur content of the No.2 fuel oil or waste oil shall not exceed 0.5 percent by weight.
  - (b) The sulfur content of the waste fuel oil shall not exceed 0.50 percent by weight.
  - (c) The sulfur content of the blast furnace slag shall not exceed 1.50 percent by weight.

- (d) The SO<sub>2</sub> emissions from the dryer/mixer shall not exceed 0.74 pounds per ton of Blast Furnace slag processed in the aggregate mix.
  - (e) The sulfur content of the Steel slag shall not exceed 0.66 percent by weight.
  - (f) The SO<sub>2</sub> emissions from the dryer/mixer shall not exceed 0.0014 pounds per ton of Steel slag processed in the aggregate mix.
- (3) When combusting only one type of fuel per twelve (12) consecutive month period in the dryer/mixer burner the usage of fuel shall be limited as follows:
- (a) Natural gas usage shall not exceed 876 million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month.
  - (b) No. 2 fuel oil usage shall not exceed 1,093,014 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
  - (c) Waste oil fuel oil usage shall not exceed 1,055,836 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.
  - (d) Blast Furnace and steel slag usage shall not exceed 150,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Note: It has to be noted that this source is permitted to burn only the above mentioned type of fuels.

- (4) When combusting more than one fuel per twelve (12) consecutive month period in the dryer/mixer burner, emissions from the dryer/mixer shall be limited as follows:

SO<sub>2</sub> emissions from the dryer/mixer shall not exceed 99 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. The Permittee shall use the following equation to determine the tons of SO<sub>2</sub> emitted per twelve (12) consecutive month period:

$$S = \frac{G(E_G) + O(E_O) + W(E_W) + B(E_B) + T(E_T)}{2,000 \text{ lbs/ton}}$$

where:

- S = tons of sulfur dioxide emissions for a 12-month consecutive period
- G = million cubic feet of natural gas used in the last 12 months
- O = gallons of No. 2 fuel oil used in last 12 months
- W = gallons of Waste oil used in last 12 months
- B = tons of Blast Furnace slag used in last 12 months
- T = tons of Steel slag used in last 12 months
- E<sub>G</sub> = 0.60 lb/million cubic feet of natural gas
- E<sub>O</sub> = 71.00 lb/1000 gallons of No. 2 fuel oil
- E<sub>W</sub> = 147 lb/1000 gallons of Waste oil
- E<sub>B</sub> = 0.74 lb/ton of Blast Furnace slag used
- E<sub>T</sub> = 0.0014 lb/ton of Steel slag used

Compliance with these limits, combined with the potential to emit SO<sub>2</sub> from all other emission units at this source, shall limit the source-wide total potential to emit of SO<sub>2</sub> to less than 100 tons per twelve (12) consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 326 IAC 2-1.1-5 (Nonattainment New Source Review) not applicable.

(5) Pursuant to 326 IAC 2-8-4, the HAP emissions from the dryer/mixer burner of the asphalt plant shall be limited as follows:

- (a) HCl emissions from the dryer/mixer shall not exceed 0.0066 pounds of HCl per gallon of waste oil burned.
- (b) The chlorine content of the waste oil shall not exceed 0.1 percent by weight.

Compliance with these limits, combined with the limited PTE from all other emission units at this source, shall limit the source-wide total potential to emit of any single HAP to less than 10 tons per 12 consecutive month period, and any combination of HAPs to less than 25 tons per 12 consecutive month period, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) not applicable.

(b) PSD Minor Source

This existing source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit PM is limited to less than two hundred fifty (250) tons per year and the potential to emit all other attainment regulated pollutants are less than two hundred fifty (250) tons per year, and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the source shall comply with the following:

- (1) The asphalt production rate shall not exceed 1,000,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (2) PM emissions from the dryer/mixer shall not exceed 0.376 pounds of PM per ton of asphalt produced.

(c) Nonattainment New Source Review

This existing source is not a major stationary source, under 326 IAC 2-1.1-5 (Nonattainment New Source Review), because this source is not located in a nonattainment area.

(d) The following terms and conditions from the previous approval have been revised/changed in this FESOP Renewal:

- (1) As noted above, the emissions calculations were updated to reflect the source's most current "worst-case" operating conditions for all units, and includes emissions not previously counted. Additionally, the most recent AP-42 emission factors have been used to characterize these emissions.
- (3) The existing annual asphalt production limit has increased from 600,000 tons per year to 1,000,000.
- (4) The PM dryer/mixer limit has changed from 0.738 to 0.376 lb/ton of asphalt produced.
- (5) The natural gas limitation has increased from 180 million cubic feet to 876 million cubic feet.
- (6) No. 2 fuel oil usage limitation changed from 1,200,000 gallons to 1,093,014 gallons.
- (7) Waste oil usage limitation changed from 600,000 to 1,055,836 gallons.

- (8) Additionally, the Office of Air Quality (OAQ) has included permit conditions pertaining to the usage of Blast Furnace Slag and Steel Slag in the aggregate mix of the dryer/mixer. The permit conditions include slag sulfur content specifications, testing conditions, recordkeeping and reporting requirements. These are new permit conditions for the source.
- (9) The pound per ton (lb/ton) for PM, PM10, PM2.5, and VOC emission limits have been revised. See Appendix A.2 for detailed calculations.
- (10) The use of propane and butane fuels has been removed from the source.

<b>Federal Rule Applicability</b>
-----------------------------------

Compliance Assurance Monitoring (CAM)

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is limited to less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

New Source Performance Standards (NSPS)

- (a) This source is still subject to the New Source Performance Standards for Hot Mix Asphalt Facilities, 40 CFR 60, Subpart I.

The units subject to this rule include the following:

- (1) Dryers
- (2) Systems for screening, handling, storing, and weighing hot aggregate
- (3) Systems for loading, transferring, and storing mineral filler
- (4) Systems for mixing hot mix asphalt
- (5) The loading, transfer, and storage systems associated with emission control systems

Applicable portions of the NSPS are the following:

- (1) 40 CFR 60.90
- (2) 40 CFR 60.91
- (3) 40 CFR 60.92
- (4) 40 CFR 60.93

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the source except as otherwise specified in 40 CFR 60, Subpart I.

- (b) The requirements of the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12), are not included in this renewal, because the one (1) natural gas-fired hot oil heater, with a maximum rated heat input capacity of 2.115 MMBtu/hr, still has a maximum design heat input capacity of less than the applicability threshold of ten (10) million British thermal units per hour.
- (c) The requirements of the New Source Performance Standard for Portland Cement Plants, 40 CFR 60, Subpart F (326 IAC 12), are not included in this renewal for the existing stationary ready-mix concrete batch plant, since it still does not meet the definition of a Portland cement plant, as defined in § 60.61, because the source still does not manufacture portland cement, by either the wet or dry process.
- (d) The requirements of the New Source Performance Standard (NSPS) for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction,

Reconstruction, or Modification Commenced After July 23, 1984 (40 CFR Part 60, Subpart Kb) (326 IAC 12) are not included in the permit for the storage tanks.

- (1) The construction of the storage tanks commenced after July 23, 1984 and the liquid asphalt storage tank (T-1) has a capacity greater than 75 cubic meters (19,813 gallons) and less than 151 cubic meters (39,890 gallons). However, this tank will not store liquids with a maximum true vapor pressure greater than 15.0 kPa.
  - (2) Finally, the No. 4 fuel oil storage tanks (T2 and T3) each have a maximum capacity less than 75 cubic meters (19,813 gallons).
- (e) The requirements of the New Source Performance Standard for Asphalt Processing and Asphalt Roofing Manufacture, 40 CFR 60, Subpart UU (326 IAC 12), are not included in the permit, since pursuant to 40 CFR 60.471, the hot mix asphalt plant is not an asphalt processing plant because it does not blow asphalt or an asphalt roofing plant because it does not produce asphalt roofing products.
- (f) The requirements of the New Source Performance Standard for Bulk Gasoline Terminals (40 CFR 60, Subpart XX) (326 IAC 12), are not included in this renewal, since the source does not meet the definition of a bulk gasoline terminal, as defined in 40 CFR 60.500. The source does not have a gasoline fuel transfer and dispensing operation.
- (g) There are no other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included in this renewal.

#### National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (a) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) From the Portland Cement Manufacturing Industry, 40 CFR 63, Subpart LLL (326 IAC 20-27), are not included in this renewal, since the existing stationary does not meet the definition of a Portland cement plant, as defined in § 63.1341, because this source does not manufacture portland cement.
- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD (326 IAC 20), are not included in this renewal, as follows:
- On June 8, 2007, the United States Court of Appeals for the District of Columbia Circuit (in *National Resource Defense Council, Sierra Club, Environmental Integrity Project vs. EPA*, No. 04-1385), vacated 40 CFR 63, Subpart DDDDD in its entirety. Additionally, since State Rule 326 IAC 20-95 incorporated the requirements of the NESHAP 40 CFR 63, Subpart DDDDD by reference, the requirements of 326 IAC 20-95 are no longer effective. However, since NESHAP 40 CFR Part 63, Subpart DDDDD has been vacated, Section 112(j) of the Clean Air Act, major sources of Hazardous Air Pollutants (HAPs), in specified source categories, requires a case-by-case MACT determination when EPA fails to promulgate a scheduled MACT Standard by the regulatory deadline. Niblock Excavating is still considered an area source under Section 112 of the Clean Air Act, MACT Standards. Therefore, the source is not subject to a case-by-case MACT determination.
- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Asphalt Processing and Asphalt Roofing Manufacturing, 40 CFR 63, Subpart LLLLL (326 IAC 20-(number)), are not included in the permit, since the hot mix asphalt plant is not a major source of HAPs, is not located at and is not part of a major source of HAP emissions, and does not engage in the preparation of asphalt flux or asphalt roofing materials.

- (d) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in this renewal.

<b>State Rule Applicability - Entire Source</b>
---

The following state rules are applicable to the source:

- (a) 326 IAC 2-8-4 (FESOP)  
FESOP applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))  
PSD applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.
- (c) 326 IAC 2-3 (Emission Offset) and (for PM2.5 nonattainment counties) 326 IAC 2-1.1-5 (Nonattainment New Source Review)  
Emission Offset (and Nonattainment New Source Review) applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.
- (d) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))  
This source is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the existing source is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.
- (e) 326 IAC 2-6 (Emission Reporting)  
This source is not subject to 326 IAC 2-6 (Emission Reporting) because it is not required to have an operating permit pursuant to 326 IAC 2-7 (Part 70); it is not located in Lake, Porter, or LaPorte County, and its potential to emit lead is less than 5 tons per year. Therefore, this rule does not apply.
- (f) 326 IAC 5-1 (Opacity Limitations)  
This existing stationary source is located in Orange County. Therefore, pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
- (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (g) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)  
The asphalt plant load-out and on-site yard, hot oil and asphalt heaters, and the material screening, and conveying, combined material processing and handling, the material storage piles, and unpaved roads continue to have the potential to emit fugitive particulate emissions; therefore, this existing source continues to be subject to the requirements of 326 IAC 6-4. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.
- (h) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)  
The source is subject to the requirements of 326 IAC 6-5, because the Asphalt Load-Out and On-Site Yard, and the Material Storage Piles, Material Processing and Handling, Material Crushing,

Screening, and Conveying, and Unpaved and Paved Roads have potential fugitive particulate emissions greater than 25 tons per year. Pursuant to 326 IAC 6-5, fugitive particulate matter emissions shall be controlled according to the Fugitive Dust Control Plan, which is included as Attachment A to the permit.

- (i) 326 IAC 6.5 PM Limitations Except Lake County  
This source is not subject to 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.
- (j) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)  
Pursuant to 326 IAC 6-3-1(c), 326 IAC 6-3 shall not apply if an applicable particulate matter emission limitation established in 326 IAC 6.5-1 (Particulate Matter Limitations Except Lake County) or 326 IAC 12 (New Source Performance Standards) is more stringent than the particulate limitation established in 326 IAC 6-3. This source is not subject to 326 IAC 6.5-1 (Particulate Matter Limitations Except Lake County) but is subject to 326 IAC 12 (New Source Performance Standards).

<b>State Rule Applicability – Individual Facilities</b>
---

Asphalt Plant

- (a) 326 IAC 6-2 (Emission Limitations for Sources of Indirect Heating)  
The dryer/mixer is not subject to the requirements of 326 IAC 6-2 because it is not a source of indirect heating.
  - (b) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
Particulate emissions from this asphalt plant are subject to a more stringent particulate requirement in 40 CFR 60, Subpart I. Therefore, the asphalt plant is exempt from the requirements of 326 IAC 6-3.
  - (c) 326 IAC 7-1.1-2 (Sulfur Dioxide (SO<sub>2</sub>) Emission Limitations)  
Pursuant to 326 IAC 7-1.1-1, the dryer/mixer is subject to the requirements of 326 IAC 7-1.1-2, because it has potential sulfur dioxide emissions greater than twenty-five (25) tons per year. Pursuant to 7-1.1-2, sulfur dioxide emissions from the dryer/mixer shall not exceed five-tenths (0.5) pound per MMBtu for distillate oil combustion and one and six-tenths (1.6) pounds per MMBtu for residual oil combustion.
- Note: No. 2 fuel oil is distillate oil and waste oil is residual oil.
- (d) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
The unlimited VOC potential emissions from the dryer/mixer are greater than twenty-five (25) tons per year. However, the source shall limit the VOC potential emissions from the dryer/mixer to less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply.

In order to render the requirements of 326 IAC 8-1-6 not applicable, the dryer/mixer shall be limited as follows:

- (1) The asphalt production rate shall not exceed 1,000,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (2) VOC emissions from the dryer/mixer shall not exceed 0.032 pounds of VOC per ton of asphalt produced.

Compliance with these limits shall limit the potential to emit VOC from the dryer/mixer to less than twenty-five (25) tons per twelve (12) consecutive month period and shall render 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities) not applicable.

- (e) 326 IAC 8-5-2 (Miscellaneous operations: asphalt paving)  
Any paving application made after January 1, 1980, is subject to the requirements of 326 IAC 8-5-2. Pursuant to this rule, no person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:
  - (a) penetrating prime coating
  - (b) stockpile storage
  - (c) application during the months of November, December, January, February and March.
- (f) 326 IAC 12 (New Source Performance Standards)  
See Federal Rule Applicability Section of this TSD.
- (g) 326 IAC 20 (Hazardous Air Pollutants)  
See Federal Rule Applicability Section of this TSD.
- (h) 326 IAC 13-8 (Used Oil Requirements)  
Upon further review, IDEM has determined that the requirements of this rule do not need to be included in the renewal, since they are regulated by another agency.

#### Hot Oil/Asphalt Cement Heaters

- (a) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)  
The hot oil heater is exempt from the requirements of 326 IAC 6-3, because, pursuant to 326 IAC 1-2-59, liquid and gaseous fuels and combustion air are not considered as part of the process weight.
- (b) 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations)  
This hot oil heater is not subject to 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations) because the potential to emit sulfur dioxide from the hot oil heater is less than twenty-five (25) tons per year and ten (10) pounds per hour.
- (c) 326 IAC 8-1-6 (New Facilities; General Reduction Requirements)  
The hot oil heater is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from the hot oil heater are less than twenty-five (25) tons per year.
- (d) 326 IAC 12 (New Source Performance Standards)  
See Federal Rule Applicability Section of this TSD.
- (e) 326 IAC 20 (Hazardous Air Pollutants)  
See Federal Rule Applicability Section of this TSD.

#### Storage Tanks

- (a) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
Each storage tank is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each new storage tank is less than twenty-five (25) tons per year.

- (b) 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)  
The four (4) storage tanks, are not subject to the requirements of 326 IAC 8-4-3 because they are not petroleum liquid storage vessels with capacities greater than thirty-nine thousand (39,000) gallons.
- (c) 326 IAC 12 (New Source Performance Standards)  
See Federal Rule Applicability Section of this TSD.
- (d) 326 IAC 20 (Hazardous Air Pollutants)  
See Federal Rule Applicability Section of this TSD.
- (e) 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)  
This stationary source is located in Elkhart County. The requirements of 326 IAC 8-9 apply only to vessels used to store a volatile organic liquid that are located in Clark, Floyd, Lake or Porter Counties. Therefore, the requirements of 326 IAC 8-9 do not apply to any of the liquid asphalt storage tanks, fuel oil storage tanks, and/or waste oil storage tanks.
- (f) There are no other 326 IAC 8 Rules that are applicable to this existing source.

<b>Compliance Determination and Monitoring Requirements</b>
---

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

<b>Emission Unit/Control</b>	<b>Operating Parameters</b>	<b>Frequency</b>
Dryer/Mixer Baghouse	Visible Emissions Notations	Once per day
Dryer/Mixer Baghouse	Pressure Drop	Once per day

These monitoring conditions are necessary because the baghouse for the dryer/mixer must operate properly to ensure compliance with 40 CFR 60, Subpart I and 326 IAC 2-8 (FESOP).

There continue to be no applicable compliance determination requirements for the existing natural gas-fired combustion units at this existing source.

The testing requirements applicable to this source are as follows:

<b>Testing Requirements</b>				
<b>Emission Unit</b>	<b>Control Device</b>	<b>Pollutant</b>	<b>Timeframe for Testing</b>	<b>Frequency of Testing</b>
Dryer/Mixer	Baghouse	PM	Five (5) years from the last valid compliance demonstration	Once every five (5) years
Dryer/Mixer	Baghouse	PM10 and PM2.5	Five (5) years from the last valid compliance demonstration	Once every five (5) years

\* The last valid stack test occurred on September 10, 2010. The source was in compliance at that time.

There continue to be no applicable testing requirements for the existing hot-mix asphalt conveying, screening, and material transfer points, and hot oil heating system, at this existing source.

### **Recommendation**

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 17, 2010. Additional information was received on January 29, February 11 and 15, 2011.

### **Conclusion**

The operation of this asphalt plant shall be subject to the conditions of the attached FESOP Renewal No. 039-30029-03296.

### **IDEM Contact**

- (a) Questions regarding this proposed permit can be directed to Janet Mobley at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5373 or toll free at 1-800-451-6027 extension 4-5373.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

**Appendix A.1: Unlimited Emissions Calculations  
Entire Source**

**Company Name:** Niblock Excavating, Inc.  
**Source Address:** 5201 County Road 23, Bristol, Indiana 46507  
**Permit Number:** F039-30029-03296  
**Reviewer:** Janet Mobley

**Asphalt Plant Maximum Capacity**

Maximum Hourly Asphalt Production =	350	ton/hr								
Maximum Annual Asphalt Production =	3,066,000	ton/yr								
Maximum Annual Slag Usage =	1,287,720	ton/yr								
Blast Furnace Slag Content	1.50	% sulfur								
Steel Slag Content	0.66	% sulfur								
Maximum Dryer Fuel Input Rate =	100.0	MMBtu/hr								
Natural Gas Usage =	876	MMCF/yr								
No. 2 Fuel Oil Usage =	6,257,143	gal/yr, and	0.50							
No. 4 Fuel Oil Usage =	0	gal/yr, and	0.50							
Residual (No. 5 or No. 6) Fuel Oil Usage =	0	gal/yr, and	0.50							
Propane Usage =	0	gal/yr, and	0.20							
Butane Usage =	0	gal/yr, and	0.22							
Used/Waste Oil Usage =	6,257,143	gal/yr, and	0.50	0.50	% ash	0.100	% chlorine,	0.010	% lead	
Diesel Engine Oil Usage =	0	gal/yr, and								
Unlimited PM Dryer/Mixer Emission Factor =	28.0	lb/ton of asphalt production								
Unlimited PM10 Dryer/Mixer Emission Factor =	6.5	lb/ton of asphalt production								
Unlimited PM2.5 Dryer/Mixer Emission Factor =	1.5	lb/ton of asphalt production								
Unlimited VOC Dryer/Mixer Emission Factor =	0.032	lb/ton of asphalt production								
Unlimited CO Dryer/Mixer Emission Factor =	0.13	lb/ton of asphalt production								
Unlimited Blast Furnace Slag SO2 Dryer/Mixer Emission Factor =	0.74	lb/ton of blast furnace slag processed								
Unlimited Steel Slag SO2 Dryer/Mixer Emission Factor =	0.0014	lb/ton of steel slag processed								

**Unlimited/Uncontrolled Emissions**

Process Description	Unlimited/Uncontrolled Potential to Emit (tons/year)									
	Criteria Pollutants							Hazardous Air Pollutants		
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	Total HAPs	Worst Case HAP	
<b>Ducted Emissions</b>										
Dryer Fuel Combustion (worst case)	100.11	79.78	79.78	229.95	83.22	3.13	36.79	24.19	20.65	(hydrogen chloride)
Dryer/Mixer (Process)	42924.00	9964.50	2299.50	88.91	84.32	49.06	199.29	16.34	4.75	(formaldehyde)
Dryer/Mixer Slag Processing (worst case)	0	0	0	476.46	0	0	0	0	0	
Hot Oil Heater Fuel Combustion (worst case)	0.13	0.22	0.22	4.70	1.32	0.05	0.78	0.021	0.017	(hexane)
<b>Worst Case Emissions*</b>	<b>42924.13</b>	<b>9964.72</b>	<b>2299.72</b>	<b>711.10</b>	<b>85.64</b>	<b>49.11</b>	<b>200.07</b>	<b>24.21</b>	<b>20.65</b>	(hydrogen chloride)
<b>Fugitive Emissions</b>										
Asphalt Load-Out, Silo Filling, On-Site Yard	1.70	1.70	1.70	0	0	26.26	4.42	0.44	0.14	(formaldehyde)
Material Storage Piles	2.92	1.02	1.02	0	0	0	0	0	0	
Material Processing and Handling	10.37	4.91	0.74	0	0	0	0	0	0	
Material Crushing, Screening, and Conveying	50.95	18.61	18.61	0	0	0	0	0	0	
Unpaved Roads	112.64	28.71	2.87	0	0	0	0	0	0	
Cold Mix Asphalt Production	0	0	0	0	0	3684.57	0	961.07	331.61	(xylenes)
Gasoline Fuel Transfer and Dispensing	0	0	0	0	0	0.00	0	0.00	0.00	(xylenes)
Volatile Organic Liquid Storage Vessels	0	0	0	0	0	negl	0	negl	0	
<b>Total Fugitive Emissions</b>	<b>178.58</b>	<b>54.94</b>	<b>24.94</b>	<b>0</b>	<b>0.00</b>	<b>3710.83</b>	<b>4.42</b>	<b>961.51</b>	<b>331.61</b>	(xylenes)
<b>Totals Unlimited/Uncontrolled PTE</b>	<b>43102.71</b>	<b>10019.66</b>	<b>2324.66</b>	<b>711.10</b>	<b>85.64</b>	<b>3759.93</b>	<b>204.49</b>	<b>985.72</b>	<b>331.61</b>	(xylenes)

negl = negligible

Worst Case Fuel Combustion is based on the fuel with the highest emissions for each specific pollutant.

\*Worst Case Emissions (tons/yr) = Worst Case Emissions from Dryer Fuel Combustion and Dryer/Mixer + Worst Case Dryer/Mixer Slag Processing + Worst Case Emissions from Hot Oil Heater Fuel Combustion  
 Fuel component percentages provided by the source.

**Appendix A.1: Unlimited Emissions Calculations**  
**Dryer/Mixer Fuel Combustion with Maximum Capacity > 100 MMBtu/hr**

Company Name: Niblock Excavating, Inc.  
 Source Address: 5201 County Road 23, Bristol, Indiana 46507  
 Permit Number: F039-30029-03296  
 Reviewer: Janet Mobley

The following calculations determine the unlimited/uncontrolled emissions created from the combustion of natural gas, fuel oil, propane, butane, or used/waste oil in the dryer/mixer at the source.

**Maximum Capacity**

Maximum Hourly Asphalt Production =	350	ton/hr
Maximum Annual Asphalt Production =	3,066,000	ton/yr
Maximum Fuel Input Rate =	100	MMBtu/hr
Natural Gas Usage =	876	MMCF/yr
No. 2 Fuel Oil Usage =	6,257,143	gal/yr, and
No. 4 Fuel Oil Usage =	0	gal/yr, and
Residual (No. 5 or No. 6) Fuel Oil Usage =	0	gal/yr, and
Propane Usage =	0	gal/yr, and
Butane Usage =	0	gal/yr, and
Used/Waste Oil Usage =	6,257,143	gal/yr, and
Diesel Engine Oil Usage =	0	gal/yr, and

	0.50	% sulfur
	0.50	% sulfur
	0.50	% sulfur
	0.20	gr/100 ft3 sulfur
	0.22	gr/100 ft3 sulfur
	0.50	% sulfur
	0.50	% ash
	0.100	% chlorine
	0.010	% lead

**Unlimited/Uncontrolled Emissions**

Criteria Pollutant	Emission Factor (units)								Unlimited/Uncontrolled Potential to Emit (tons/yr)								Worse Case Fuel (tons/yr)
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	No. 4 Fuel Oil (lb/kgal)	Residual (No. 5 or No. 6) Fuel Oil (lb/kgal)	Propane (lb/kgal)	Butane (lb/kgal)	Used/Waste Oil (lb/kgal)	Diesel Engine (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	No. 4 Fuel Oil (tons/yr)	Residual (No. 5 or No. 6) Fuel Oil (tons/yr)	Propane (tons/yr)	Butane (tons/yr)	Used/Waste Oil (tons/yr)	Diesel Engine (tons/yr)	
PM	1.9	2.0	7.0	7.815	0.5	0.6	32.0	43.4	0.83	6.26	0.00	0.00	0.00	0.00	100.11	0.00	100.11
PM10/PM2.5	7.6	3.3	8.3	9.315	0.5	0.6	25.5	43.4	3.33	10.32	0.00	0.00	0.00	0.00	79.78	0.00	79.78
SO2	0.6	71.0	75.0	78.5	0.020	0.020	73.5	40.6	0.26	222.13	0.00	0.00	0.00	0.00	229.95	0.00	229.95
NOx	190	24.0	47.0	47.0	13.0	15.0	19.0	617.4	83.22	75.09	0.00	0.00	0.00	0.00	59.44	0.00	83.22
VOC	5.5	0.20	0.20	0.28	1.00	1.10	1.0	49.00	2.41	0.63	0.00	0.00	0.00	0.00	3.13	0.00	3.13
CO	84	5.0	5.0	5.0	7.5	8.4	5.0	133.0	36.792	15.64	0.00	0.00	0.00	0.00	15.64	0.00	36.79
<b>Hazardous Air Pollutant</b>																	
HCl								6.6							20.65		20.65
Antimony			5.25E-03	5.25E-03				negl									0.0E+00
Arsenic	2.0E-04	5.6E-04	1.32E-03	1.32E-03				1.1E-01	8.8E-05	1.75E-03				3.44E-01			3.4E-01
Beryllium	1.2E-05	4.2E-04	2.78E-05	2.78E-05				negl	5.3E-06	1.31E-03							1.3E-03
Cadmium	1.1E-03	4.2E-04	3.98E-04	3.98E-04				9.3E-03	4.8E-04	1.31E-03					2.91E-02		2.9E-02
Chromium	1.4E-03	4.2E-04	8.45E-04	8.45E-04				2.0E-02	6.1E-04	1.31E-03					6.26E-02		6.3E-02
Cobalt	8.4E-05	6.02E-03	6.02E-03	6.02E-03				2.1E-04	3.7E-05						6.57E-04		6.6E-04
Lead	5.0E-04	1.3E-03	1.51E-03	1.51E-03				0.55	2.2E-04	3.94E-03					1.7E+00		1.72
Manganese	3.8E-04	8.4E-04	3.00E-03	3.00E-03				6.8E-02	1.7E-04	2.63E-03					2.13E-01		0.21
Mercury	2.6E-04	4.2E-04	1.13E-04	1.13E-04					1.1E-04	1.31E-03							1.3E-03
Nickel	2.1E-03	4.2E-04	8.45E-02	8.45E-02				1.1E-02	9.2E-04	1.31E-03					3.44E-02		0.034
Selenium	2.4E-05	2.1E-03	6.83E-04	6.83E-04				negl	1.1E-05	6.57E-03					negl		6.6E-03
1,1,1-Trichloroethane			2.36E-04	2.36E-04													0.0E+00
1,3-Butadiene								5.47E-03							0.00E+00		0.0E+00
Acetaldehyde								1.07E-01							0.00E+00		0.0E+00
Acrolein								1.30E-02							0.00E+00		0.0E+00
Benzene	2.1E-03		2.14E-04	2.14E-04				2.2E-03	9.2E-04								9.2E-04
Bis(2-ethylhexyl)phthalate								1.31E-01							6.88E-03		6.9E-03
Dichlorobenzene	1.2E-03							8.0E-07	5.3E-04						2.50E-06		5.3E-04
Ethylbenzene			6.36E-05	6.36E-05													0.0E+00
Formaldehyde	7.5E-02	6.10E-02	3.30E-02	3.30E-02				1.65E-01	3.3E-02	1.91E-01					0.00E+00		0.191
Hexane	1.8E+00								0.79								0.788
Phenol								2.4E-03							7.51E-03		7.5E-03
Toluene	3.4E-03		6.20E-03	6.20E-03				5.73E-02	1.5E-03						0.00E+00		1.5E-03
Total PAH Haps	negl		1.13E-03	1.13E-03				3.9E-02	2.35E-02	negl					1.22E-01	0.00E+00	1.2E-01
Polycyclic Organic Matter		3.30E-03								1.03E-02							1.0E-02
Xylene			1.09E-04	1.09E-04				3.99E-02							0.00E+00		0.0E+00
<b>Total HAPs</b>									<b>0.83</b>	<b>0.22</b>	<b>0.00</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>23.19</b>	<b>0.00</b>	<b>24.19</b>

**Methodology**

Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 MMCF/1,000 MMBtu]  
 Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 gal/0.140 MMBtu]  
 Propane Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 gal/0.0905 MMBtu]  
 Butane Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 gal/0.0974 MMBtu]  
 Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Natural Gas Usage (MMCF/yr)] \* [Emission Factor (lb/MMCF)] \* [ton/2000 lbs]  
 All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (gals/yr)] \* [Emission Factor (lb/kgal)] \* [kgal/1000 gal] \* [ton/2000 lbs]  
 Sources of AP-42 Emission Factors for fuel combustion:

- Natural Gas : AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4
- No. 2, No. 4, and No. 6 Fuel Oil: AP-42 Chapter 1.3 (dated 9/98), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11
- Propane and Butane: AP-42 Chapter 1.5 (dated 7/08), Tables 1.5-1 (assuming PM = PM10)
- Waste Oil: AP-42 Chapter 1.11 (dated 10/96), Tables 1.11-1, 1.11-2, 1.11-3, 1.11-4, and 1.11-5
- Diesel Engine Oil: AP-42 Chapter 3.3 (dated 10/96), Tables 3.3-1 and 3.3-2

\*Since there are no specific AP-42 HAP emission factors for combustion of No. 4 fuel oil, it was assumed that HAP emissions from combustion of No. 4 fuel oil were equal to combustion of residual or No. 6 fuel oil.

**Abbreviations**

- PM = Particulate Matter
- PM10 = Particulate Matter (<10 um)
- PM2.5 = Particulate Matter (< 2.5 um)
- SO2 = Sulfur Dioxide
- NOx = Nitrous Oxides
- VOC = Volatile Organic Compounds
- CO = Carbon Monoxide
- HAP = Hazardous Air Pollutant
- HCl = Hydrogen Chloride
- PAH = Polyaromatic Hydrocarbon

**Appendix A.1: Unlimited Emissions Calculations  
Dryer/Mixer**

**Company Name: Niblock Excavating, Inc.  
Source Address: 5201 County Road 23, Bristol, Indiana 46507  
Permit Number: F039-30029-03296  
Reviewer: Janet Mobley**

The following calculations determine the unlimited/uncontrolled emissions from the aggregate drying/mixing

Maximum Hourly Asphalt Production =  ton/hr  
Maximum Annual Asphalt Production =  ton/yr

Criteria Pollutant	Uncontrolled Emission Factors (lb/ton)			Unlimited/Uncontrolled Potential to Emit (tons/yr)			Worse Case PTE
	Drum-Mix Plant (dryer/mixer)			Drum-Mix Plant (dryer/mixer)			
	Natural Gas	No. 2 Fuel Oil	Waste Oil	Natural Gas	No. 2 Fuel Oil	Waste Oil	
PM*	28	28	28	42924	42924	42924	42924
PM10*	6.5	6.5	6.5	9964.5	9964.5	9964.5	9964.5
PM2.5*	1.5	1.5	1.5	2299.5	2299.5	2299.5	2300
SO2**	0.0034	0.011	0.058	5.2	16.9	88.9	88.9
NOx**	0.026	0.055	0.055	39.9	84.3	84.3	84.3
VOC**	0.032	0.032	0.032	49.1	49.1	49.1	49.1
CO***	0.13	0.13	0.13	199.3	199.3	199.3	199.3
<b>Hazardous Air Pollutant</b>							
HCl			2.10E-04			3.22E-01	0.32
Antimony	1.80E-07	1.80E-07	1.80E-07	2.76E-04	2.76E-04	2.76E-04	2.76E-04
Arsenic	5.60E-07	5.60E-07	5.60E-07	8.58E-04	8.58E-04	8.58E-04	8.58E-04
Beryllium	negl	negl	negl	negl	negl	negl	0.00E+00
Cadmium	4.10E-07	4.10E-07	4.10E-07	6.29E-04	6.29E-04	6.29E-04	6.29E-04
Chromium	5.50E-06	5.50E-06	5.50E-06	8.43E-03	8.43E-03	8.43E-03	8.43E-03
Cobalt	2.60E-08	2.60E-08	2.60E-08	3.99E-05	3.99E-05	3.99E-05	3.99E-05
Lead	6.20E-07	1.50E-05	1.50E-05	9.50E-04	2.30E-02	2.30E-02	2.30E-02
Manganese	7.70E-06	7.70E-06	7.70E-06	1.18E-02	1.18E-02	1.18E-02	1.18E-02
Mercury	2.40E-07	2.60E-06	2.60E-06	3.68E-04	3.99E-03	3.99E-03	3.99E-03
Nickel	6.30E-05	6.30E-05	6.30E-05	0.10	0.10	0.10	0.10
Selenium	3.50E-07	3.50E-07	3.50E-07	5.37E-04	5.37E-04	5.37E-04	5.37E-04
2,2,4 Trimethylpentane	4.00E-05	4.00E-05	4.00E-05	0.06	0.06	0.06	0.06
Acetaldehyde			1.30E-03			1.99	1.99
Acrolein			2.60E-05			3.99E-02	3.99E-02
Benzene	3.90E-04	3.90E-04	3.90E-04	0.60	0.60	0.60	0.60
Ethylbenzene	2.40E-04	2.40E-04	2.40E-04	0.37	0.37	0.37	0.37
Formaldehyde	3.10E-03	3.10E-03	3.10E-03	4.75	4.75	4.75	4.75
Hexane	9.20E-04	9.20E-04	9.20E-04	1.41	1.41	1.41	1.41
Methyl chloroform	4.80E-05	4.80E-05	4.80E-05	0.07	0.07	0.07	0.07
MEK			2.00E-05			0.03	0.03
Propionaldehyde			1.30E-04			0.20	0.20
Quinone			1.60E-04			0.25	0.25
Toluene	1.50E-04	2.90E-03	2.90E-03	0.23	4.45	4.45	4.45
Total PAH Haps	1.90E-04	8.80E-04	8.80E-04	0.29	1.35	1.35	1.35
Xylene	2.00E-04	2.00E-04	2.00E-04	0.31	0.31	0.31	0.31

**Total HAPs 16.34**

**Worst Single HAP 4.75 (formaldehyde)**

**Methodology**

Unlimited/Uncontrolled Potential to Emit (tons/yr) = (Maximum Annual Asphalt Production (tons/yr)) \* (Emission Factor (lb/ton)) \* (ton/2000 lbs)

Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-3, 11.1-7, 11.1-8, 11.1-10, and 11.1-12

Natural gas, No. 2 fuel oil, and waste oil represent the worst possible emissions scenario. AP-42 did not provide emission factors for any other fuels.

\* PM, PM10, and PM2.5 AP-42 emission factors based on drum mix dryer fired with natural gas, propane, fuel oil, and waste oil. According to AP-42 fuel type does not significantly effect PM, PM10, and PM2.5 emissions.

\*\* SO2, NOx, and VOC AP-42 emission factors are for natural gas, No. 2 fuel oil, and waste oil only.

\*\*\* CO AP-42 emission factor determined by combining data from drum mix dryer fired with natural gas, No. 6 fuel oil, and No. 2 fuel oil to develop single CO emission factor.

**Abbreviations**

VOC - Volatile Organic Compounds

HAP = Hazardous Air Pollutant

HCl = Hydrogen Chloride

PAH = Polyaromatic Hydrocarbon

SO2 = Sulfur Dioxide

**Appendix A.1: Unlimited Emissions Calculations  
Dryer/Mixer Slag Processing**

**Company Name:** Niblock Excavating, Inc.  
**Source Address:** 5201 County Road 23, Bristol, Indiana 46507  
**Permit Number:** F039-30029-03296  
**Reviewer:** Janet Mobley

The following calculations determine the unlimited emissions from the processing of slag in the aggregate drying/mixing

Maximum Annual Slag Usage\* =  ton/yr

Slag Type	Sulfur Content (%)	SO2 Emission Factor (lb/ton)	Unlimited Potential to Emit (tons/yr)
Blast Furnace Slag**	1.50	0.74	476.46
Steel Slag***	0.66	0.0014	0.90

**Methodology**

\* The maximum annual slag usage was provided by the source.

\*\* Testing results for Slag, obtained January 9, 2009 from similar operations at Rieth-Riley Construction Co., Inc. facility located in Valparaiso, IN (permit #127-27075-05241), produced an Emission Factor of 0.54 lb/ton from slag containing 1.10% sulfur content. The source has requested a safety factor of 0.20 lb/ton be added to the tested value for use at this location to allow for a sulfur content up to 1.5%.

\*\*\* Testing results for steel slag, obtained June 2009 from E & B Paving, Inc. facility located in Huntington, IN. The testing results showed a steel slag emission factor of 0.0007 lb/ton from slag containing 0.33% sulfur content.  
 Unlimited Potential to Emit SO2 from Slag (tons/yr) = [(Maximum Annual Slag Usage (ton/yr)) \* [Emission Factor (lb/ton)] \* [ton/2000 lbs]

**Abbreviations**

SO2 = Sulfur Dioxide

**Appendix A.1: Unlimited Emissions Calculations**  
**Hot Oil Heater**  
**Fuel Combustion with Maximum Capacity < 100 MMBtu/hr**

**Company Name:** Niblock Excavating, Inc.  
**Source Location:** 5201 County Road 23, Bristol, Indiana 46507  
**Permit Number:** F039-30029-03296  
**Reviewer:** Janet Mobley

Maximum Hot Oil Heater Fuel Input Rate = 2.12 MMBtu/hr  
 Natural Gas Usage = 19 MMCF/yr  
 No. 2 Fuel Oil Usage = 132,339 gal/yr, and 0.50 % sulfur

**Unlimited/Uncontrolled Emissions**

Criteria Pollutant	Emission Factor (units)		Unlimited/Uncontrolled Potential to Emit (tons/yr)		Worse Case Fuel (tons/yr)
	Hot Oil Heater		Hot Oil Heater		
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	
PM	1.9	2.0	0.018	0.132	0.13
PM10/PM2.5	7.6	3.3	0.070	0.218	0.22
SO2	0.6	71.0	0.006	4.698	4.70
NOx	100	20.0	0.926	1.323	1.32
VOC	5.5	0.20	0.051	0.013	0.05
CO	84	5.0	0.778	0.331	0.78
<b>Hazardous Air Pollutant</b>					
Arsenic	2.0E-04	5.6E-04	1.9E-06	3.71E-05	3.7E-05
Beryllium	1.2E-05	4.2E-04	1.1E-07	2.78E-05	2.8E-05
Cadmium	1.1E-03	4.2E-04	1.0E-05	2.78E-05	2.8E-05
Chromium	1.4E-03	4.2E-04	1.3E-05	2.78E-05	2.8E-05
Cobalt	8.4E-05		7.8E-07		7.8E-07
Lead	5.0E-04	1.3E-03	4.6E-06	8.34E-05	8.3E-05
Manganese	3.8E-04	8.4E-04	3.5E-06	5.56E-05	5.6E-05
Mercury	2.6E-04	4.2E-04	2.4E-06	2.78E-05	2.8E-05
Nickel	2.1E-03	4.2E-04	1.9E-05	2.78E-05	2.8E-05
Selenium	2.4E-05	2.1E-03	2.2E-07	1.39E-04	1.4E-04
Benzene	2.1E-03		1.9E-05		1.9E-05
Dichlorobenzene	1.2E-03		1.1E-05		1.1E-05
Ethylbenzene					0.0E+00
Formaldehyde	7.5E-02	6.10E-02	6.9E-04	4.04E-03	4.0E-03
Hexane	1.8E+00		0.02		1.7E-02
Phenol					0.0E+00
Toluene	3.4E-03		3.1E-05		3.1E-05
Total PAH Haps	negl		negl		0.0E+00
Polycyclic Organic Matter		3.30E-03		2.18E-04	2.2E-04
<b>Total HAPs =</b>			<b>1.7E-02</b>	<b>4.7E-03</b>	<b>0.021</b>

**Methodology**

Equivalent Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 MMCF/1,000 MMBtu]  
 Equivalent Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 gal/0.140 MMBtu]  
 Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Natural Gas Usage (MMCF/yr)] \* [Emission Factor (lb/MMCF)] \* [ton/2000 lbs]  
 All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (gals/yr)] \* [Emission Factor (lb/kgal)] \* [kgal/1000 gal] \* [ton/2000 lbs]  
 Sources of AP-42 Emission Factors for fuel combustion:  
 Natural Gas : AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4  
 No. 2 Fuel Oil: AP-42 Chapter 1.3 (dated 9/98), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 SO2 = Sulfur Dioxide  
 NOx = Nitrous Oxides  
 VOC = Volatile Organic Compounds  
 CO = Carbon Monoxide  
 HAP = Hazardous Air Pollutant  
 HCl = Hydrogen Chloride  
 PAH = Polyaromatic Hydrocarbon

**Appendix A.1: Unlimited Emissions Calculations  
Asphalt Load-Out, Silo Filling, and Yard Emissions**

**Company Name: Niblock Excavating, Inc.  
Source Address: 5201 County Road 23, Bristol, Indiana 46507  
Permit Number: F039-30029-03296  
Reviewer: Janet Mobley**

The following calculations determine the unlimited/uncontrolled fugitive emissions from hot asphalt mix load-out, silo filling, and on-site yard for a drum mix hot mix asphalt plant

Asphalt Temperature, T =	325	F
Asphalt Volatility Factor, V =	-0.5	
Maximum Annual Asphalt Production =	3,066,000	tons/yr

Pollutant	Emission Factor (lb/ton asphalt)			Unlimited/Uncontrolled Potential to Emit (tons/yr)			
	Load-Out	Silo Filling	On-Site Yard	Load-Out	Silo Filling	On-Site Yard	Total
Total PM*	5.2E-04	5.9E-04	NA	0.80	0.90	NA	1.70
Organic PM	3.4E-04	2.5E-04	NA	0.52	0.389	NA	0.91
TOC	0.004	0.012	0.001	6.38	18.68	1.686	26.7
CO	0.001	0.001	3.5E-04	2.07	1.809	0.540	4.42

NA = Not Applicable (no AP-42 Emission Factor)

<b>PM/HAPs</b>	<b>0.037</b>	<b>0.044</b>	<b>0</b>	<b>0.081</b>
<b>VOC/HAPs</b>	<b>0.094</b>	<b>0.238</b>	<b>0.025</b>	<b>0.357</b>
<b>non-VOC/HAPs</b>	<b>4.9E-04</b>	<b>5.0E-05</b>	<b>1.3E-04</b>	<b>6.7E-04</b>
<b>non-VOC/non-HAPs</b>	<b>0.46</b>	<b>0.26</b>	<b>0.12</b>	<b>0.85</b>

<b>Total VOCs</b>	<b>5.99</b>	<b>18.68</b>	<b>1.6</b>	<b>26.3</b>
<b>Total HAPs</b>	<b>0.13</b>	<b>0.28</b>	<b>0.025</b>	<b>0.44</b>
		<b>Worst Single HAP</b>		<b>0.136</b>
				<b>(formaldehyde)</b>

**Methodology**

The asphalt temperature and volatility factor were provided by the source.

Unlimited/Uncontrolled Potential to Emit (tons/yr) = (Maximum Annual Asphalt Production (tons/yr)) \* (Emission Factor (lb/ton)) \* (ton/2000 lbs)

Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-14, 11.1-15, and 11.1-16

Plant Load-Out Emission Factor Equations (AP-42 Table 11.1-14)::

Total PM/PM10/PM2.5 Ef = 0.000181 + 0.00141(-V)e<sup>-(0.0251)(T+460)-20.43)</sup>

Organic PM Ef = 0.00141(-V)e<sup>-(0.0251)(T+460)-20.43)</sup>

TOC Ef = 0.0172(-V)e<sup>-(0.0251)(T+460)-20.43)</sup>

CO Ef = 0.00558(-V)e<sup>-(0.0251)(T+460)-20.43)</sup>

Silo Filling Emission Factor Equations (AP-42 Table 11.1-14):

PM/PM10 Ef = 0.000332 + 0.00105(-V)e<sup>-(0.0251)(T+460)-20.43)</sup>

Organic PM Ef = 0.00105(-V)e<sup>-(0.0251)(T+460)-20.43)</sup>

TOC Ef = 0.0504(-V)e<sup>-(0.0251)(T+460)-20.43)</sup>

CO Ef = 0.00488(-V)e<sup>-(0.0251)(T+460)-20.43)</sup>

On Site Yard CO emissions estimated by multiplying the TOC emissions by 0.32

\*No emission factors available for PM10 or PM2.5, therefore IDEM assumes PM10 and PM2.5 are equivalent to Total PM.

**Abbreviations**

TOC = Total Organic Compounds

CO = Carbon Monoxide

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

HAP = Hazardous Air Pollutant

VOC = Volatile Organic Compound

**Appendix A.1: Unlimited Emissions Calculations  
Asphalt Load-Out, Silo Filling, and Yard Emissions (continued)**

Company Name: Niblock Excavating, Inc.  
Source Address: 5201 County Road 23, Bristol, Indiana 46507  
Permit Number: F039-30029-03296  
Reviewer: Janet Mobley

**Organic Particulate-Based Compounds (Table 11.1-15)**

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Unlimited/Uncontrolled Potential to Emit (tons/yr)			
					Load-out and Onsite Yard (% by weight of Total Organic PM)	Silo Filling and Asphalt Storage Tank (% by weight of Total Organic PM)	Load-out	Silo Filling	Onsite Yard	Total
<b>PAH HAPs</b>										
Acenaphthene	83-32-9	PM/HAP	POM	Organic PM	0.26%	0.47%	1.4E-03	1.8E-03	NA	3.2E-03
Acenaphthylene	208-96-8	PM/HAP	POM	Organic PM	0.028%	0.014%	1.5E-04	5.4E-05	NA	2.0E-04
Anthracene	120-12-7	PM/HAP	POM	Organic PM	0.07%	0.13%	3.7E-04	5.1E-04	NA	8.7E-04
Benzo(a)anthracene	56-55-3	PM/HAP	POM	Organic PM	0.019%	0.056%	9.9E-05	2.2E-04	NA	3.2E-04
Benzo(b)fluoranthene	205-99-2	PM/HAP	POM	Organic PM	0.0076%	0	4.0E-05	0	NA	4.0E-05
Benzo(k)fluoranthene	207-08-9	PM/HAP	POM	Organic PM	0.0022%	0	1.1E-05	0	NA	1.1E-05
Benzo(g,h,i)perylene	191-24-2	PM/HAP	POM	Organic PM	0.0019%	0	9.9E-06	0	NA	9.9E-06
Benzo(a)pyrene	50-32-8	PM/HAP	POM	Organic PM	0.0023%	0	1.2E-05	0	NA	1.2E-05
Benzo(e)pyrene	192-97-2	PM/HAP	POM	Organic PM	0.0078%	0.0095%	4.1E-05	3.7E-05	NA	7.8E-05
Chrysene	218-01-9	PM/HAP	POM	Organic PM	0.103%	0.21%	5.4E-04	8.2E-04	NA	1.4E-03
Dibenz(a,h)anthracene	53-70-3	PM/HAP	POM	Organic PM	0.00037%	0	1.9E-06	0	NA	1.9E-06
Fluoranthene	206-44-0	PM/HAP	POM	Organic PM	0.05%	0.15%	2.6E-04	0	NA	2.6E-04
Fluorene	86-73-7	PM/HAP	POM	Organic PM	0.77%	1.01%	4.0E-03	3.9E-03	NA	8.0E-03
Indeno(1,2,3-cd)pyrene	193-39-5	PM/HAP	POM	Organic PM	0.00047%	0	2.5E-06	0	NA	2.5E-06
2-Methylnaphthalene	91-57-6	PM/HAP	POM	Organic PM	2.38%	5.27%	1.2E-02	2.1E-02	NA	0.033
Naphthalene	91-20-3	PM/HAP	POM	Organic PM	1.25%	1.82%	6.5E-03	7.1E-03	NA	1.4E-02
Perylene	198-55-0	PM/HAP	POM	Organic PM	0.022%	0.03%	1.1E-04	1.2E-04	NA	2.3E-04
Phenanthrene	85-01-8	PM/HAP	POM	Organic PM	0.81%	1.80%	4.2E-03	7.0E-03	NA	1.1E-02
Pyrene	129-00-0	PM/HAP	POM	Organic PM	0.15%	0.44%	7.8E-04	1.7E-03	NA	2.5E-03
<b>Total PAH HAPs</b>							<b>0.031</b>	<b>0.044</b>	<b>NA</b>	<b>0.075</b>
<b>Other semi-volatile HAPs</b>										
Phenol		PM/HAP	---	Organic PM	1.18%	0	6.2E-03	0	0	6.2E-03

NA = Not Applicable (no AP-42 Emission Factor)

**Methodology**

Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Speciation Profile (%)] \* [Organic PM (tons/yr)]  
Speciation Profiles from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-15 and 11.1-16

**Abbreviations**

PM = Particulate Matter  
HAP = Hazardous Air Pollutant  
POM = Polycyclic Organic Matter

**Appendix A.1: Unlimited Emissions Calculations**  
**Asphalt Load-Out, Silo Filling, and Yard Emissions (continued)**

**Organic Volatile-Based Compounds (Table 11.1-16)**

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Unlimited/Uncontrolled Potential to Emit (tons/yr)			
					Load-out and Onsite Yard (% by weight of TOC)	Silo Filling and Asphalt Storage Tank (% by weight of TOC)	Load-out	Silo Filling	Onsite Yard	Total
<b>VOC</b>		VOC	---	TOC	94%	100%	<b>5.99</b>	<b>18.68</b>	<b>1.59</b>	<b>26.26</b>
non-VOC/non-HAPS										
Methane	74-82-8	non-VOC/non-HAP	---	TOC	6.50%	0.26%	4.1E-01	4.9E-02	1.1E-01	0.573
Acetone	67-64-1	non-VOC/non-HAP	---	TOC	0.046%	0.055%	2.9E-03	1.0E-02	7.8E-04	0.014
Ethylene	74-85-1	non-VOC/non-HAP	---	TOC	0.71%	1.10%	4.5E-02	2.1E-01	1.2E-02	0.263
<b>Total non-VOC/non-HAPS</b>					<b>7.30%</b>	<b>1.40%</b>	<b>0.465</b>	<b>0.262</b>	<b>0.123</b>	<b>0.85</b>
Volatile organic HAPs										
Benzene	71-43-2	VOC/HAP	---	TOC	0.052%	0.032%	3.3E-03	6.0E-03	8.8E-04	1.0E-02
Bromomethane	74-83-9	VOC/HAP	---	TOC	0.0096%	0.0049%	6.1E-04	9.2E-04	1.6E-04	1.7E-03
2-Butanone	78-93-3	VOC/HAP	---	TOC	0.049%	0.039%	3.1E-03	7.3E-03	8.3E-04	1.1E-02
Carbon Disulfide	75-15-0	VOC/HAP	---	TOC	0.013%	0.016%	8.3E-04	3.0E-03	2.2E-04	4.0E-03
Chloroethane	75-00-3	VOC/HAP	---	TOC	0.00021%	0.004%	1.3E-05	7.5E-04	3.5E-06	7.6E-04
Chloromethane	74-87-3	VOC/HAP	---	TOC	0.015%	0.023%	9.6E-04	4.3E-03	2.5E-04	5.5E-03
Cumene	92-82-8	VOC/HAP	---	TOC	0.11%	0	7.0E-03	0	1.9E-03	8.9E-03
Ethylbenzene	100-41-4	VOC/HAP	---	TOC	0.28%	0.038%	1.8E-02	7.1E-03	4.7E-03	0.030
Formaldehyde	50-00-0	VOC/HAP	---	TOC	0.088%	0.69%	5.6E-03	1.3E-01	1.5E-03	0.136
n-Hexane	100-54-3	VOC/HAP	---	TOC	0.15%	0.10%	9.6E-03	1.9E-02	2.5E-03	0.031
Isooctane	540-84-1	VOC/HAP	---	TOC	0.0018%	0.00031%	1.1E-04	5.8E-05	3.0E-05	2.0E-04
Methylene Chloride	75-09-2	non-VOC/HAP	---	TOC	0	0.00027%	0	5.0E-05	0	5.0E-05
MTBE	1634-04-4	VOC/HAP	---	TOC	0	0	0	0	0	0
Styrene	100-42-5	VOC/HAP	---	TOC	0.0073%	0.0054%	4.7E-04	1.0E-03	1.2E-04	1.6E-03
Tetrachloroethene	127-18-4	non-VOC/HAP	---	TOC	0.0077%	0	4.9E-04	0	1.3E-04	6.2E-04
Toluene	100-88-3	VOC/HAP	---	TOC	0.21%	0.062%	1.3E-02	1.2E-02	3.5E-03	0.029
1,1,1-Trichloroethane	71-55-6	VOC/HAP	---	TOC	0	0	0	0	0	0
Trichloroethene	79-01-6	VOC/HAP	---	TOC	0	0	0	0	0	0
Trichlorofluoromethane	75-69-4	VOC/HAP	---	TOC	0.0013%	0	8.3E-05	0	2.2E-05	1.0E-04
m-/p-Xylene	1330-20-7	VOC/HAP	---	TOC	0.41%	0.20%	2.6E-02	3.7E-02	6.9E-03	0.070
o-Xylene	95-47-6	VOC/HAP	---	TOC	0.08%	0.057%	5.1E-03	1.1E-02	1.3E-03	1.7E-02
<b>Total volatile organic HAPs</b>					<b>1.50%</b>	<b>1.30%</b>	<b>0.096</b>	<b>0.243</b>	<b>0.025</b>	<b>0.364</b>

**Methodology**

Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Speciation Profile (%)] \* [TOC (tons/yr)]  
 Speciation Profiles from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-15 and 11.1-16

**Abbreviations**

TOC = Total Organic Compounds  
 HAP = Hazardous Air Pollutant  
 VOC = Volatile Organic Compound  
 MTBE = Methyl tert butyl ether

**Appendix A.1: Unlimited Emissions Calculations  
Material Storage Piles**

**Company Name:** Niblock Excavating, Inc.  
**Source Address:** 5201 County Road 23, Bristol, Indiana 46507  
**Permit Number:** F039-30029-03296  
**Reviewer:** Janet Mobley

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8,760 hours of use and USEPA's AP-42 (Pre 1983 Edition), Section 11.2.3.

$$E_f = 1.7 \cdot (s/1.5) \cdot (365-p)/235 \cdot (f/15)$$

where  $E_f$  = emission factor (lb/acre/day)  
 $s$  = silt content (wt %)  
 $p$  =  days of rain greater than or equal to 0.01 inches  
 $f$  =  % of wind greater than or equal to 12 mph

Material	Silt Content (wt %)*	Emission Factor (lb/acre/day)	Maximum Anticipated Pile Size (acres)**	PTE of PM (tons/yr)	PTE of PM10/PM2.5 (tons/yr)
Sand	2.6	3.01	0.30	0.165	0.058
Limestone	1.6	1.85	3.70	1.251	0.438
RAP	0.5	0.58	1.00	0.106	0.037
Gravel	1.6	1.85	3.20	1.082	0.379
Slag	3.8	4.40	0.40	0.321	0.112
<b>Totals</b>				<b>2.92</b>	<b>1.02</b>

**Methodology**

PTE of PM (tons/yr) = (Emission Factor (lb/acre/day)) \* (Maximum Pile Size (acres)) \* (ton/2000 lbs) \* (8760 hours/yr)

PTE of PM10/PM2.5 (tons/yr) = (Potential PM Emissions (tons/yr)) \* 35%

\*Silt content values obtained from AP-42 Table 13.2.4-1 (dated 1/95)

\*\*Maximum anticipated pile size (acres) provided by the source.

RAP - recycled asphalt pavement

**Abbreviations**

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

PM2.5 = PM10

PTE = Potential to Emit

**Appendix A.1: Unlimited Emissions Calculations**  
**Material Processing, Handling, Crushing, Screening, and Conveying**

**Company Name:** Niblock Excavating, Inc.  
**Source Address:** 5201 County Road 23, Bristol, Indiana 46507  
**Permit Number:** F039-30029-03296  
**Reviewer:** Janet Mobley

**Batch or Continuous Drop Operations (AP-42 Section 13.2.4)**

To estimate potential fugitive dust emissions from processing and handling of raw materials (batch or continuous drop operations), AP-42 emission factors for Aggregate Handling, Section 13.2.4 (fifth edition, 1/95) are utilized.

$$E_f = k \cdot (0.0032) \cdot [(U/5)^{1.3} / (M/2)^{1.4}]$$

where:  $E_f$  = Emission factor (lb/ton)

k (PM) =	0.74	= particle size multiplier (0.74 assumed for aerodynamic diameter <=100 um)
k (PM10) =	0.35	= particle size multiplier (0.35 assumed for aerodynamic diameter <=10 um)
k (PM2.5) =	0.053	= particle size multiplier (0.053 assumed for aerodynamic diameter <=2.5 um)
U =	10.2	= worst case annual mean wind speed (Source: NOAA, 2006*)
M =	4.0	= material % moisture content of aggregate (Source: AP-42 Section 11.1.1.1)
Ef (PM) =	2.27E-03	lb PM/ton of material handled
Ef (PM10) =	1.07E-03	lb PM10/ton of material handled
Ef (PM2.5) =	1.62E-04	lb PM2.5/ton of material handled

Maximum Annual Asphalt Production =	3,066,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	0.5%	
Maximum Material Handling Throughput =	3,050,670	tons/yr

Type of Activity	Unlimited/Uncontrolled PTE of PM (tons/yr)	Unlimited/Uncontrolled PTE of PM10 (tons/yr)	Unlimited/Uncontrolled PTE of PM2.5 (tons/yr)
Truck unloading of materials into storage piles	3.46	1.64	0.25
Front-end loader dumping of materials into feeder bins	3.46	1.64	0.25
Conveyor dropping material into dryer/mixer or batch tower	3.46	1.64	0.25
<b>Total (tons/yr)</b>	<b>10.37</b>	<b>4.91</b>	<b>0.74</b>

**Methodology**

The percent asphalt cement/binder provided by the source.  
Maximum Material Handling Throughput (tons/yr) = [Annual Asphalt Production Limitation (tons/yr)] \* [1 - Percent Asphalt Cement/Binder (weight %)]  
Unlimited Potential to Emit (tons/yr) = (Maximum Material Handling Throughput (tons/yr)) \* (Emission Factor (lb/ton)) \* (ton/2000 lbs)  
Raw materials may include limestone, sand, recycled asphalt pavement (RAP), gravel, slag, and other additives  
\*Worst case annual mean wind speed (Indianapolis, IN) from "Comparative Climatic Data", National Climatic Data Center, NOAA, 2006

**Material Screening and Conveying (AP-42 Section 11.19.2)**

To estimate potential fugitive dust emissions from raw material crushing, screening, and conveying, AP-42 emission factors for Crushed Stone Processing Operations, Section 11.19.2 (dated 8/04) are utilized.

Operation	Uncontrolled Emission Factor for PM (lbs/ton)*	Uncontrolled Emission Factor for PM10 (lbs/ton)*	Unlimited/Uncontrolled PTE of PM (tons/yr)	Unlimited/Uncontrolled PTE of PM10/PM2.5 (tons/yr)**
Crushing	0.0054	0.0024	8.24	3.66
Screening	0.025	0.0087	38.13	13.27
Conveying	0.003	0.0011	4.58	1.68
<b>Unlimited Potential to Emit (tons/yr) =</b>			<b>50.95</b>	<b>18.61</b>

**Methodology**

Maximum Material Handling Throughput (tons/yr) = [Annual Asphalt Production Limitation (tons/yr)] \* [1 - Percent Asphalt Cement/Binder (weight %)]  
Unlimited Potential to Emit (tons/yr) = [Maximum Material Handling Throughput (tons/yr)] \* [Emission Factor (lb/ton)] \* [ton/2000 lbs]  
Raw materials may include stone/gravel, slag, and recycled asphalt pavement (RAP)  
Emission Factors from AP-42 Chapter 11.19.2 (dated 8/04), Table 11.19.2-2  
\*Uncontrolled emissions factors for PM/PM10 represent tertiary crushing of stone with moisture content ranging from 0.21 to 1.3 percent by weight (Table 11.19.2-2). The bulk moisture content of aggregate in the storage piles at a hot mix asphalt production plant typically stabilizes between 3 to 5 percent by weight (Source: AP-42 Section 11.1.1.1).  
\*\*Assumes PM10 = PM2.5

**Abbreviations**

PM = Particulate Matter  
PM10 = Particulate Matter (<10 um)  
PM2.5 = Particulate matter (< 2.5 um)  
PTE = Potential to Emit

**Appendix A.1: Unlimited Emissions Calculations  
Unpaved Roads**

Company Name: Niblock Excavating, Inc.  
Source Address: 5201 County Road 23, Bristol, Indiana 46507  
Permit Number: F039-30029-03296  
Reviewer: Janet Mobley

**Unpaved Roads at Industrial Site**

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

Maximum Annual Asphalt Production	3,066,000	tons/yr
Percent Asphalt Cement/Binder (weight %)	0.5%	
Maximum Material Handling Throughput	3,050,670	tons/yr
Maximum Asphalt Cement/Binder Throughput	15,330	tons/yr
Maximum No. 2 Fuel Oil Usage	6,257,143	gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per year (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	17.0	22.4	39.4	1.4E+05	5.4E+06	300	0.057	7738.1
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	0	17.0	1.4E+05	2.3E+06	300	0.057	7738.1
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.0	4.3E+02	2.0E+04	300	0.057	24.2
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	4.3E+02	5.1E+03	300	0.057	24.2
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.0	6.6E+02	2.9E+04	300	0.057	37.6
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	6.6E+02	7.9E+03	300	0.057	37.6
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.2	7.3E+05	1.4E+07	300	0.057	41269.9
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.0	7.3E+05	1.1E+07	300	0.057	41269.9
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	17.0	24.0	41.0	1.3E+05	5.2E+06	300	0.057	7258.5
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	17.0	0	17.0	1.3E+05	2.2E+06	300	0.057	7258.5
<b>Total</b>						<b>2.0E+06</b>	<b>4.0E+07</b>		<b>1.1E+05</b>

Average Vehicle Weight Per Trip	20.2	tons/trip
Average Miles Per Trip	0.057	miles/trip

Unmitigated Emission Factor,  $E_f = k \cdot [(s/12)^a] \cdot [(W/3)^b]$  (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-3 Sand/Gravel Processing Plant Road)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2)
W =	20.2	20.2	20.2	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor,  $E_{ext} = E_f \cdot [(365 - P)/365]$

Mitigated Emission Factor,  $E_{ext} = E_f \cdot [(365 - P)/365]$   
where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, $E_f$	6.08	1.55	0.16	lb/mile
Mitigated Emission Factor, $E_{ext}$	4.00	1.02	0.10	lb/mile
Dust Control Efficiency	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	23.53	6.00	0.60	15.47	3.94	0.39	7.74	1.97	0.20
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	23.53	6.00	0.60	15.47	3.94	0.39	7.74	1.97	0.20
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.074	0.019	0.00	0.048	0.012	0.00	0.024	0.006	0.00
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.074	0.019	0.00	0.048	0.012	0.00	0.024	0.006	0.00
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	0.114	0.029	0.00	0.075	0.019	0.00	0.038	0.010	0.00
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	0.114	0.029	0.00	0.075	0.019	0.00	0.038	0.010	0.00
Aggregate/RAP Loader Full	Front-end loader (3 CY)	125.51	31.99	3.20	82.52	21.03	2.10	41.26	10.52	1.05
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	125.51	31.99	3.20	82.52	21.03	2.10	41.26	10.52	1.05
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	22.07	5.63	0.56	14.51	3.70	0.37	7.26	1.85	0.18
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	22.07	5.63	0.56	14.51	3.70	0.37	7.26	1.85	0.18
<b>Totals</b>		<b>342.60</b>	<b>87.32</b>	<b>8.73</b>	<b>225.27</b>	<b>57.41</b>	<b>5.74</b>	<b>112.64</b>	<b>28.71</b>	<b>2.87</b>

**Methodology**

Maximum Material Handling Throughput = [Annual Asphalt Production Limitation (tons/yr)] \* [1 - Percent Asphalt Cement/Binder (weight %)]  
 Maximum Asphalt Cement/Binder Throughput = [Annual Asphalt Production Limitation (tons/yr)] \* [Percent Asphalt Cement/Binder (weight %)]  
 Maximum Weight of Vehicle and Load (tons/trip) = [Maximum Weight of Vehicle (tons/trip)] + [Maximum Weight of Load (tons/trip)]  
 Maximum trips per year (trip/yr) = [Throughput (tons/yr)] / [Maximum Weight of Load (tons/trip)]  
 Total Weight driven per year (ton/yr) = [Maximum Weight of Vehicle and Load (tons/trip)] \* [Maximum trips per year (trip/yr)]  
 Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]  
 Maximum one-way miles (miles/yr) = [Maximum trips per year (trip/yr)] \* [Maximum one-way distance (mi/trip)]  
 Average Vehicle Weight Per Trip (ton/yr) = SUM[Total Weight driven per year (ton/yr)] / SUM[Maximum trips per year (trip/yr)]  
 Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/yr)] / SUM[Maximum trips per year (trip/yr)]  
 Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Unmitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)  
 Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Mitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)  
 Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) \* (1 - Dust Control Efficiency)

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 PM2.5 = Particulate Matter (<2.5 um)  
 PM2.5 = PM10  
 PTE = Potential to Emit

**Appendix A.1: Unlimited Emissions Calculations  
Cold Mix Asphalt Production and Stockpiles**

**Company Name:** Niblock Excavating, Inc.  
**Source Address:** 5201 County Road 23, Bristol, Indiana 46507  
**Permit Number:** F039-30029-03296  
**Reviewer:** Janet Mobley

The following calculations determine the amount of VOC and HAP emissions created from volatilization of solvent used as diluent in the liquid binder for cold mix asphalt production

Maximum Annual Asphalt Production =	3,066,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	0.5%	
Maximum Asphalt Cement/Binder Throughput =	15,330	tons/yr

**Volatile Organic Compounds**

	Maximum weight % of VOC solvent in binder*	Weight % VOC solvent in binder that evaporates	Maximum VOC Solvent Usage (tons/yr)	PTE of VOC (tons/yr)
Cut back asphalt rapid cure (assuming gasoline or naphtha solvent)	25.3%	95.0%	3878.5	3684.6
Cut back asphalt medium cure (assuming kerosene solvent)	28.6%	70.0%	4384.4	3069.1
Cut back asphalt slow cure (assuming fuel oil solvent)	20.0%	25.0%	3066.0	766.5
Emulsified asphalt with solvent (assuming water, emulsifying agent, and 15% fuel oil solvent)	15.0%	46.4%	2299.5	1067.0
Other asphalt with solvent binder	25.9%	2.5%	3970.5	99.3
<b>Worst Case PTE of VOC =</b>				<b>3684.6</b>

**Hazardous Air Pollutants**

Worst Case Total HAP Content of VOC solvent (weight %)* =	26.08%
Worst Case Single HAP Content of VOC solvent (weight %)* =	9.0% Xylenes
<b>PTE of Total HAPs (tons/yr) =</b>	<b>961.07</b>
<b>PTE of Single HAP (tons/yr) =</b>	<b>331.61 Xylenes</b>

**Hazardous Air Pollutant (HAP) Content (% by weight) For Various Petroleum Solvents\***

Volatile Organic HAP	CAS#	Hazardous Air Pollutant (HAP) Content (% by weight)* For Various Petroleum Solvents				
		Gasoline	Kerosene	Diesel (#2) Fuel Oil	No. 2 Fuel Oil	No. 6 Fuel Oil
1,3-Butadiene	106-99-0	3.70E-5%				
2,2,4-Trimethylpentane	540-84-1	2.40%				
Acenaphthene	83-32-9		4.70E-5%		1.80E-4%	
Acenaphthylene	208-96-8		4.50E-5%		6.00E-5%	
Anthracene	120-12-7		1.20E-6%	5.80E-5%	2.80E-5%	5.00E-5%
Benzene	71-43-2	1.90%		2.90E-4%		
Benzo(a)anthracene	56-55-3			9.60E-7%	4.50E-7%	5.50E-4%
Benzo(a)pyrene	50-32-8			2.20E-6%	2.10E-7%	4.40E-5%
Benzo(g,h,i)perylene	191-24-2			1.20E-7%	5.70E-8%	
Biphenyl	92-52-4			6.30E-4%	7.20E-5%	
Chrysene	218-01-9			4.50E-7%	1.40E-6%	6.90E-4%
Ethylbenzene	100-41-4	1.70%		0.07%	3.40E-4%	
Fluoranthene	206-44-0		7.10E-6%	5.90E-5%	1.40E-5%	2.40E-4%
Fluorene	86-73-7		4.20E-5%	8.60E-4%	1.90E-4%	
Indeno(1,2,3-cd)pyrene	193-39-5			1.60E-7%		1.00E-4%
Methyl-tert-butylether	1634-04-4	0.33%				
Naphthalene	91-20-3	0.25%	0.31%	0.26%	0.22%	4.20E-5%
n-Hexane	110-54-3	2.40%				
Phenanthrene	85-01-8		8.60E-6%	8.80E-4%	7.90E-4%	2.10E-4%
Pyrene	129-00-0		2.40E-6%	4.60E-5%	2.90E-5%	2.30E-5%
Toluene	108-88-3	8.10%		0.18%	6.20E-4%	
Total Xylenes	1330-20-7	9.00%		0.50%	0.23%	
<b>Total Organic HAPs</b>		<b>26.08%</b>	<b>0.33%</b>	<b>1.29%</b>	<b>0.68%</b>	<b>0.19%</b>
<b>Worst Single HAP</b>		<b>9.00%</b>	<b>0.31%</b>	<b>0.50%</b>	<b>0.23%</b>	<b>0.07%</b>
		<b>Xylenes</b>	<b>Naphthalene</b>	<b>Xylenes</b>	<b>Xylenes</b>	<b>Chrysene</b>

**Methodology**

Maximum Asphalt Cement/Binder Throughput = [Annual Asphalt Production Limitation (tons/yr)] \* [Percent Asphalt Cement/Binder (weight %)]  
 Maximum VOC Solvent Usage (tons/yr) = [Maximum Asphalt Cement/Binder Throughput (tons/yr)] \* [Maximum Weight % of VOC Solvent in Binder]  
 PTE of VOC (tons/yr) = [Weight % VOC solvent in binder that evaporates] \* [Maximum VOC Solvent Usage (tons/yr)]  
 PTE of Total HAPs (tons/yr) = [Worst Case Total HAP Content of VOC solvent (weight %)] \* [Worst Case Limited PTE of VOC (tons/yr)]  
 PTE of Single HAP (tons/yr) = [Worst Case Single HAP Content of VOC solvent (weight %)] \* [Worst Case Limited PTE of VOC (tons/yr)]  
 \*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at: <http://www.aehs.com/publications/catalog/contents/tp.htm>

**Abbreviations**

VOC = Volatile Organic Compounds  
 PTE = Potential to Emit

**Appendix A.1: Unlimited Emissions Calculations  
Gasoline Fuel Transfer and Dispensing Operation**

**Company Name: Niblock Excavating, Inc.  
Source Address: 5201 County Road 23, Bristol, Indiana 46507  
Permit Number: F039-30029-03296  
Reviewer: Janet Mobley**

To calculate evaporative emissions from the gasoline dispensing fuel transfer and dispensing operation handling emission factors from AP-42 Table 5.2-7 were used. The total potential emission of VOC is as follows:

$$\begin{aligned} \text{Gasoline Throughput} &= \boxed{0} \text{ gallons/day} \\ &= \boxed{0.0} \text{ kgal/yr} \end{aligned}$$

**Volatile Organic Compounds**

Emission Source	Emission Factor (lb/kgal of throughput)	PTE of VOC (tons/yr)*
Filling storage tank (balanced submerged filling)	0.3	0.00
Tank breathing and emptying	1.0	0.00
Vehicle refueling (displaced losses - controlled)	1.1	0.00
Spillage	0.7	0.00
<b>Total</b>		<b>0.00</b>

**Hazardous Air Pollutants**

Worst Case Total HAP Content of VOC solvent (weight %)* =	26.08%
Worst Case Single HAP Content of VOC solvent (weight %)* =	9.0% Xylenes
<b>Limited PTE of Total HAPs (tons/yr) =</b>	<b>0.00</b>
<b>Limited PTE of Single HAP (tons/yr) =</b>	<b>0.00 Xylenes</b>

**Methodology**

The gasoline throughput was provided by the source.

Gasoline Throughput (kgal/yr) = [Gasoline Throughput (lbs/day)] \* [365 days/yr] \* [kgal/1000 gal]

PTE of VOC (tons/yr) = [Gasoline Throughput (kgal/yr)] \* [Emission Factor (lb/kgal)] \* [ton/2000 lb]

PTE of Total HAPs (tons/yr) = [Worst Case Total HAP Content of VOC solvent (weight %)] \* [PTE of VOC (tons/yr)]

PTE of Single HAP (tons/yr) = [Worst Case Single HAP Content of VOC solvent (weight %)] \* [PTE of VOC (tons/yr)]

\*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at: <http://www.aehs.com/publications/catalog/contents/tp.htm>

**Abbreviations**

VOC = Volatile Organic Compounds

PTE = Potential to Emit

**Appendix A.2: Limited Emissions Summary  
Entire Source**

**Company Name:** Niblock Excavating, Inc.  
**Source Address:** 5201 County Road 23, Bristol, Indiana 46507  
**Permit Number:** F039-30029-03296  
**Reviewer:** Janet Mobley

**Asphalt Plant Limitations**

Maximum Hourly Asphalt Production =	350	ton/hr								
Annual Asphalt Production Limitation =	1,000,000	ton/yr								
Slag Usage Limitation =	150,000	ton/yr								
Blast Furnace Slag Content Limitation =	1.50	% sulfur								
Steel Slag Content Limitation =	0.66	% sulfur								
Natural Gas Limitation =	876	MMCF/yr								
No. 2 Fuel Oil Limitation =	1,093,014	gal/yr, and	0.50	% sulfur						
No. 4 Fuel Oil Limitation =	0	gal/yr, and	0.50	% sulfur						
Residual (No. 5 or No. 6) Fuel Oil Limitation =	0	gal/yr, and	0.50	% sulfur						
Propane Limitation =	0	gal/yr, and	0.20	gr/100 ft3 sulfur						
Butane Limitation =	0	gal/yr, and	0.22	gr/100 ft3 sulfur						
Used/Waste Oil Limitation =	1,055,836	gal/yr, and	0.50	% sulfur	0.50	% ash	0.100	% chlorine,	0.010	% lead
PM Dryer/Mixer Limitation =	0.376	lb/ton of asphalt production								
PM10 Dryer/Mixer Limitation =	0.160	lb/ton of asphalt production								
PM2.5 Dryer/Mixer Limitation =	0.180	lb/ton of asphalt production								
CO Dryer/Mixer Limitation =	0.130	lb/ton of asphalt production								
VOC Dryer/Mixer Limitation =	0.032	lb/ton of asphalt production								
Blast Furnace Slag SO2 Dryer/Mixer Limitation =	0.74	lb/ton of blast furnace slag processed								
Steel Slag SO2 Dryer/Mixer Limitation =	0.0014	lb/ton of steel slag processed								
Cold Mix Asphalt VOC Usage Limitation =	74.4	tons/yr								
HCl Limitation =	6.6	lb/kgal								

**Limited/Controlled Emissions**

Process Description	Limited/Controlled Potential Emissions (tons/year)								
	Criteria Pollutants						Hazardous Air Pollutants		
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	Total HAPs	Worst Case HAP
<b>Ducted Emissions</b>									
Dryer Fuel Combustion (worst case)	16.89	13.46	13.46	38.80	83.22	2.41	36.79	4.74	3.48 (hydrogen chloride)
Dryer/Mixer (Process)	188.18	80.01	89.79	29.00	27.50	16.00	65.00	5.33	1.55 (formaldehyde)
Dryer/Mixer Slag Processing (worst case)	0	0	0	55.50	0	0	0	0	0
Hot Oil Heater Fuel Combustion (worst case)	0.13	0.22	0.22	4.70	1.32	0.05	0.78	0.02	0.017 (hexane)
<b>Worst Case Emissions*</b>	<b>188.32</b>	<b>80.22</b>	<b>90.01</b>	<b>99.00</b>	<b>84.54</b>	<b>16.05</b>	<b>65.78</b>	<b>5.35</b>	<b>3.48 (hydrogen chloride)</b>
<b>Fugitive Emissions</b>									
Asphalt Load-Out, Silo Filling, On-Site Yard	0.55	0.55	0.55	0	0	8.57	1.44	0.14	0.04 (formaldehyde)
Material Storage Piles	3.41	1.19	1.19	0	0	0	0	0	0
Material Processing and Handling	3.38	1.60	0.24	0	0	0	0	0	0
Material Crushing, Screening, and Conveying	16.62	6.07	6.07	0	0	0	0	0	0
Unpaved Roads	36.72	9.36	0.94	0	0	0	0	0	0
Cold Mix Asphalt Production	0	0	0	0	0	74.40	0	19.41	6.70 (xylenes)
Gasoline Fuel Transfer and Dispensing	0	0	0	0	0	0.00	0	0.00	0.00 (xylenes)
Volatile Organic Liquid Storage Vessels	0	0	0	0	0	negl	0	negl	negl
<b>Total Fugitive Emissions</b>	<b>60.68</b>	<b>18.78</b>	<b>8.99</b>	<b>0</b>	<b>0</b>	<b>82.97</b>	<b>1.44</b>	<b>19.55</b>	<b>6.70 (xylenes)</b>
<b>Totals Limited/Controlled Emissions</b>	<b>249.00</b>	<b>99.00</b>	<b>99.00</b>	<b>99.00</b>	<b>84.54</b>	<b>99.02</b>	<b>67.22</b>	<b>24.90</b>	<b>6.70 (xylenes)</b>

negl = negligible

Worst Case Fuel Combustion is based on the fuel with the highest emissions for each specific pollutant.

\*Worst Case Emissions (tons/yr) = Worst Case Emissions from Dryer Fuel Combustion and Dryer/Mixer + Worst Case Dryer/Mixer Slag Processing + Worst Case Emissions from Hot Oil Heater Fuel Combustion  
 Fuel component percentages provided by the source.

**Appendix A.2: Limited Emissions Summary**  
**Dryer/Mixer Fuel Combustion with Maximum Capacity > 100 MMBtu/hr**

Company Name: Niblock Excavating, Inc.  
 Source Address: 5201 County Road 23, Bristol, Indiana 46507  
 Permit Number: F039-30029-03296  
 Reviewer: Janet Mobley

The following calculations determine the limited emissions created from the combustion of natural gas, fuel oil, propane, butane, or used/waste oil in the dryer/mixer and all other fuel combustion sources at the source.

**Production and Fuel Limitations**

Maximum Hourly Asphalt Production =	350	ton/hr
Annual Asphalt Production Limitation =	1,000,000	ton/yr
Natural Gas Limitation =	876	MMCF/yr
No. 2 Fuel Oil Limitation =	1,093,014	gal/yr, and
No. 4 Fuel Oil Limitation =	0	gal/yr, and
Residual (No. 5 or No. 6) Fuel Oil Limitation =	0	gal/yr, and
Propane Limitation =	0	gal/yr, and
Butane Limitation =	0	gal/yr, and
Used/Waste Oil Limitation =	1,055,836	gal/yr, and

0.50	% sulfur
0.50	% sulfur
0.50	% sulfur
0.20	gr/100 ft3 sulfur
0.22	gr/100 ft3 sulfur
0.50	% sulfur
0.50	% ash
0.100	% chlorine
0.010	% lead

**Limited Emissions**

Criteria Pollutant	Emission Factor (units)							Limited Potential to Emit (tons/yr)							Worse Case Fuel (tons/yr)
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	No. 4 Fuel Oil* (lb/kgal)	Residual (No. 5 or No. 6) Fuel Oil (lb/kgal)	Propane (lb/kgal)	Butane (lb/kgal)	Used/Waste Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	No. 4 Fuel Oil (tons/yr)	Residual (No. 5 or No. 6) Fuel Oil (tons/yr)	Propane (tons/yr)	Butane (tons/yr)	Used/Waste Oil (tons/yr)	
PM	1.9	2	7	7.815	0.5	0.6	32	0.83	1.09	0.00	0.00	0.000	0.000	16.89	<b>16.89</b>
PM10	7.6	3.3	8.3	9.315	0.5	0.6	25.5	3.33	1.80	0.00	0.00	0.000	0.000	13.46	<b>13.46</b>
SO2	0.6	71.0	75.0	78.5	0.020	0.020	73.5	0.26	38.80	0.00	0.00	0.000	0.000	38.80	<b>38.80</b>
NOx	190	24.0	47.0	47.0	13.0	15.0	19.0	83.22	13.12	0.00	0.00	0.00	0.00	10.03	<b>83.22</b>
VOC	5.5	0.20	0.20	0.28	1.00	1.10	1.0	2.41	0.11	0.00	0.00	0.00	0.00	0.53	<b>2.41</b>
CO	84	5.0	5.0	5.0	7.5	8.4	5.0	36.79	2.73	0.00	0.00	0.00	0.00	2.64	<b>36.79</b>
<b>Hazardous Air Pollutant</b>															
HCl							6.6							3.48	<b>3.48</b>
Antimony							negl								<b>0.0E+00</b>
Arsenic	2.0E-04	5.6E-04					1.1E-01	8.8E-05	3.06E-04					5.81E-02	<b>5.8E-02</b>
Beryllium	1.2E-05	4.2E-04					negl	5.3E-06	2.30E-04						<b>2.3E-04</b>
Cadmium	1.1E-03	4.2E-04					9.3E-03	4.8E-04	2.30E-04					4.91E-03	<b>4.9E-03</b>
Chromium	1.4E-03	4.2E-04					2.0E-02	6.1E-04	2.30E-04					1.06E-02	<b>1.1E-02</b>
Cobalt	8.4E-05						2.1E-04	3.7E-05						1.11E-04	<b>1.1E-04</b>
Lead	5.0E-04	1.3E-03					0.55	2.2E-04	6.89E-04					2.9E-01	<b>0.29</b>
Manganese	3.8E-04	8.4E-04					6.8E-02	1.7E-04	4.59E-04					3.59E-02	<b>0.04</b>
Mercury	2.6E-04	4.2E-04						1.1E-04	2.30E-04						<b>2.3E-04</b>
Nickel	2.1E-03	4.2E-04					1.1E-02	9.2E-04	2.30E-04					5.81E-03	<b>0.006</b>
Selenium	2.4E-05	2.1E-03					negl	1.1E-05	1.15E-03					negl	<b>1.1E-03</b>
1,1,1-Trichloroethane															<b>0.0E+00</b>
1,3-Butadiene															<b>0.0E+00</b>
Acetaldehyde															<b>0.0E+00</b>
Acrolein															<b>0.0E+00</b>
Benzene	2.1E-03							9.2E-04							<b>9.2E-04</b>
Bis(2-ethylhexyl)phthalate							2.2E-03							1.16E-03	<b>1.2E-03</b>
Dichlorobenzene	1.2E-03						8.0E-07	5.3E-04						4.22E-07	<b>5.3E-04</b>
Ethylbenzene															<b>0.0E+00</b>
Formaldehyde	7.5E-02	6.10E-02						3.3E-02	3.33E-02						<b>0.033</b>
Hexane	1.8E+00							0.79							<b>0.788</b>
Phenol							2.4E-03							1.27E-03	<b>1.3E-03</b>
Toluene	3.4E-03							1.5E-03							<b>1.5E-03</b>
Total PAH Haps							3.9E-02							2.06E-02	<b>2.1E-02</b>
Polycyclic Organic Matter		3.30E-03							1.80E-03						<b>1.8E-03</b>
Xylene															<b>0.0E+00</b>
<b>Total HAPs</b>							<b>0.83</b>	<b>0.04</b>	<b>0.00</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>3.91</b>	<b>4.74</b>	

**Methodology**

Natural Gas: Limited Potential to Emit (tons/yr) = (Natural Gas Limitation (MMCF/yr)) \* (Emission Factor (lb/MMCF)) \* (ton/2000 lbs)  
 All Other Fuels: Limited Potential to Emit (tons/yr) = (Fuel Limitation (gals/yr)) \* (Emission Factor (lb/kgal)) \* (kgal/1000 gal) \* (ton/2000 lbs)  
 Sources of AP-42 Emission Factors for fuel combustion:

- Natural Gas : AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4
- No. 2, No. 4, and No. 6 Fuel Oil: AP-42 Chapter 1.3 (dated 9/98), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11
- Propane and Butane: AP-42 Chapter 1.5 (dated 7/08), Tables 1.5-1 (assuming PM = PM10)
- Waste Oil: AP-42 Chapter 1.11 (dated 10/96), Tables 1.11-1, 1.11-2, 1.11-3, 1.11-4, and 1.11-5

\*Since there are no specific AP-42 HAP emission factors for combustion of No. 4 fuel oil, it was assumed that HAP emissions from combustion of No. 4 fuel oil were equal to combustion of residual or No. 6 fuel oil.

**Abbreviations**

- PM = Particulate Matter
- PM10 = Particulate Matter (<10 um)
- SO2 = Sulfur Dioxide
- NOx = Nitrous Oxides
- VOC = Volatile Organic Compounds
- CO = Carbon Monoxide

- HAP = Hazardous Air Pollutant
- HCl = Hydrogen Chloride
- PAH = Polyaromatic Hydrocarbon

**Appendix A.2: Limited Emissions Summary  
Dryer/Mixer**

**Company Name:** Niblock Excavating, Inc.  
**Source Address:** 5201 County Road 23, Bristol, Indiana 46507  
**Permit Number:** F039-30029-03296  
**Reviewer:** Janet Mobley

The following calculations determine the limited emissions from the aggregate drying/mixing

Maximum Hourly Asphalt Production =	350	ton/hr
Annual Asphalt Production Limitation =	1,000,000	ton/yr
PM Dryer/Mixer Limitation =	0.376	lb/ton of asphalt production
PM10 Dryer/Mixer Limitation =	0.160	lb/ton of asphalt production
PM2.5 Dryer/Mixer Limitation =	0.180	lb/ton of asphalt production
CO Dryer/Mixer Limitation =	0.130	lb/ton of asphalt production
VOC Dryer/Mixer Limitation =	0.032	lb/ton of asphalt production

Criteria Pollutant	Emission Factor or Limitation (lb/ton)			Limited/Controlled Potential to Emit (tons/yr)			Worse Case PTE
	Drum-Mix Plant (dryer/mixer, controlled by fabric filter)			Drum-Mix Plant (dryer/mixer, controlled by fabric filter)			
	Natural Gas	No. 2 Fuel Oil	Waste Oil	Natural Gas	No. 2 Fuel Oil	Waste Oil	
PM*	0.376	0.376	0.376	188.2	188.2	188.2	188.2
PM10*	0.160	0.160	0.160	80.0	80.0	80.0	80.0
PM2.5*	0.180	0.180	0.180	89.8	89.8	89.8	89.8
SO2**	0.003	0.011	0.058	1.7	5.5	29.0	29.0
NOx**	0.026	0.055	0.055	13.0	27.5	27.5	27.5
VOC**	0.032	0.032	0.032	16.0	16.0	16.0	16.0
CO***	0.130	0.130	0.130	65.0	65.0	65.0	65.0
<b>Hazardous Air Pollutant</b>							
HCl			2.10E-04			0.11	0.11
Antimony	1.80E-07	1.80E-07	1.80E-07	9.00E-05	9.00E-05	9.00E-05	9.00E-05
Arsenic	5.60E-07	5.60E-07	5.60E-07	2.80E-04	2.80E-04	2.80E-04	2.80E-04
Beryllium	negl	negl	negl	negl	negl	negl	0.00E+00
Cadmium	4.10E-07	4.10E-07	4.10E-07	2.05E-04	2.05E-04	2.05E-04	2.05E-04
Chromium	5.50E-06	5.50E-06	5.50E-06	2.75E-03	2.75E-03	2.75E-03	2.75E-03
Cobalt	2.60E-08	2.60E-08	2.60E-08	1.30E-05	1.30E-05	1.30E-05	1.30E-05
Lead	6.20E-07	1.50E-05	1.50E-05	3.10E-04	7.50E-03	7.50E-03	7.50E-03
Manganese	7.70E-06	7.70E-06	7.70E-06	3.85E-03	3.85E-03	3.85E-03	3.85E-03
Mercury	2.40E-07	2.60E-06	2.60E-06	1.20E-04	1.30E-03	1.30E-03	1.30E-03
Nickel	6.30E-05	6.30E-05	6.30E-05	3.15E-02	3.15E-02	3.15E-02	3.15E-02
Selenium	3.50E-07	3.50E-07	3.50E-07	1.75E-04	1.75E-04	1.75E-04	1.75E-04
2,2,4 Trimethylpentane	4.00E-05	4.00E-05	4.00E-05	2.00E-02	2.00E-02	2.00E-02	2.00E-02
Acetaldehyde			1.30E-03			0.65	0.65
Acrolein			2.60E-05			1.30E-02	1.30E-02
Benzene	3.90E-04	3.90E-04	3.90E-04	0.20	0.20	0.20	0.20
Ethylbenzene	2.40E-04	2.40E-04	2.40E-04	0.12	0.12	0.12	0.12
Formaldehyde	3.10E-03	3.10E-03	3.10E-03	1.55	1.55	1.55	1.55
Hexane	9.20E-04	9.20E-04	9.20E-04	0.46	0.46	0.46	0.46
Methyl chloroform	4.80E-05	4.80E-05	4.80E-05	0.02	0.02	0.02	0.02
MEK			2.00E-05			0.01	0.01
Propionaldehyde			1.30E-04			0.07	0.07
Quinone			1.60E-04			0.08	0.08
Toluene	1.50E-04	2.90E-03	2.90E-03	0.08	1.45	1.45	1.45
Total PAH Haps	1.90E-04	8.80E-04	8.80E-04	0.10	0.44	0.44	0.44
Xylene	2.00E-04	2.00E-04	2.00E-04	0.10	0.10	0.10	0.10

**Total HAPs 5.33**  
**Worst Single HAP 1.55 (formaldehyde)**

**Methodology**  
 Limited/Controlled Potential to Emit (tons/yr) = (Annual Asphalt Production Limitation (tons/yr)) \* (Emission Factor (lb/ton)) \* (ton/2000 lbs)

Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-3, 11.1-4, 11.1-7, 11.1-8, 11.1-10, and 11.1-12

Natural gas, No. 2 fuel oil, and waste oil represent the worst possible emissions scenario. AP-42 did not provide emission factors for any other fuels.

\* PM, PM10, and PM2.5 AP-42 emission factors based on drum mix dryer fired with natural gas, propane, fuel oil, and waste oil. According to AP-42 fuel type does not significantly effect PM, PM10, and PM2.5 emissions.

\*\* SO2, NOx, and VOC AP-42 emission factors are for natural gas, No. 2 fuel oil, and waste oil only.

\*\*\* CO AP-42 emission factor determined by combining data from drum mix dryer fired with natural gas, No. 6 fuel oil, and No. 2 fuel oil to develop single CO emission factor.

**Abbreviations**

VOC = Volatile Organic Compounds      HAP = Hazardous Air Pollutant  
 HCl = Hydrogen Chloride                  PAH = Polyaromatic Hydrocarbon  
 SO2 = Sulfur Dioxide

**Appendix A.2: Limited Emissions Summary  
Dryer/Mixer Slag Processing**

**Company Name:** Niblock Excavating, Inc.  
**Source Address:** 5201 County Road 23, Bristol, Indiana 46507  
**Permit Number:** F039-30029-03296  
**Reviewer:** Janet Mobley

The following calculations determine the limited emissions from the processing of slag in the aggregate drying/mixing

Slag Usage Limitation =  ton/yr

Slag Type	Limited SO2 Emission Factor (lb/ton)	Limited Potential to Emit (tons/yr)
Blast Furnace Slag*	0.74	55.50
Steel Slag**	0.0014	0.11

**Methodology**

\* Testing results for Slag, obtained January 9, 2009 from similar operations at Rieth-Riley Construction Co., Inc. facility located in Valparaiso, IN (permit #127-27075-05241), produced an Emission Factor of 0.54 lb/ton from slag containing 1.10% sulfur content. The source has requested a safety factor of 0.20 lb/ton be added to the tested value for use at this location to allow for a sulfur content up to 1.5%.

\*\* Testing results for steel slag, obtained June 2009 from E & B Paving, Inc. facility located in Huntington, IN. The testing results showed a steel slag emission factor of 0.0007 lb/ton from slag containing 0.33% sulfur content.

Limited Potential to Emit SO2 from Slag (tons/yr) = (Slag Usage Limitation (ton/yr)) \* [Limited Emission Factor (lb/ton)] \* [ton/2000 lbs]

**Abbreviations**

SO2 = Sulfur Dioxide

**Appendix A.2: Limited Emissions Summary**  
**Hot Oil Heater**  
**Fuel Combustion with Maximum Capacity < 100 MMBtu/hr**

**Company Name:** Niblock Excavating, Inc.  
**Source Location:** 5201 County Road 23, Bristol, Indiana 46507  
**Permit Number:** F039-30029-03296  
**Reviewer:** Janet Mobley

Maximum Hot Oil Heater Fuel Input Rate = 2.12 MMBtu/hr  
 Natural Gas Usage = 19 MMCF/yr  
 No. 2 Fuel Oil Usage = 132,339 gal/yr, and 0.50 % sulfur

**Unlimited/Uncontrolled Emissions**

Criteria Pollutant	Emission Factor (units)		Unlimited/Uncontrolled Potential to Emit (tons/yr)		
	Hot Oil Heater		Hot Oil Heater		
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	Worse Case Fuel (tons/yr)
PM	1.9	2.0	0.018	0.132	0.13
PM10/PM2.5	7.6	3.3	0.070	0.218	0.22
SO2	0.6	71.0	0.006	4.698	4.70
NOx	100	20.0	0.926	1.323	1.32
VOC	5.5	0.20	0.051	0.013	0.05
CO	84	5.0	0.778	0.331	0.78
<b>Hazardous Air Pollutant</b>					
Arsenic	2.0E-04	5.6E-04	1.9E-06	3.71E-05	3.7E-05
Beryllium	1.2E-05	4.2E-04	1.1E-07	2.78E-05	2.8E-05
Cadmium	1.1E-03	4.2E-04	1.0E-05	2.78E-05	2.8E-05
Chromium	1.4E-03	4.2E-04	1.3E-05	2.78E-05	2.8E-05
Cobalt	8.4E-05		7.8E-07		7.8E-07
Lead	5.0E-04	1.3E-03	4.6E-06	8.34E-05	8.3E-05
Manganese	3.8E-04	8.4E-04	3.5E-06	5.56E-05	5.6E-05
Mercury	2.6E-04	4.2E-04	2.4E-06	2.78E-05	2.8E-05
Nickel	2.1E-03	4.2E-04	1.9E-05	2.78E-05	2.8E-05
Selenium	2.4E-05	2.1E-03	2.2E-07	1.39E-04	1.4E-04
Benzene	2.1E-03		1.9E-05		1.9E-05
Dichlorobenzene	1.2E-03		1.1E-05		1.1E-05
Ethylbenzene					0
Formaldehyde	7.5E-02	6.10E-02	6.9E-04	4.04E-03	0.004
Hexane	1.8E+00		0.02		0.017
Phenol					0
Toluene	3.4E-03		3.1E-05		3.1E-05
Total PAH Haps	negl				0
Polycyclic Organic Matter		3.30E-03		2.18E-04	2.2E-04
<b>Total HAPs =</b>			<b>1.7E-02</b>	<b>4.7E-03</b>	<b>0.021</b>

**Methodology**

Equivalent Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 MMCF/1,000 MMBtu]

Equivalent Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 gal/0.140 MMBtu]

Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Natural Gas Usage (MMCF/yr)] \* [Emission Factor (lb/MMCF)] \* [ton/2000 lbs]

All Other Fuels: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (gals/yr)] \* [Emission Factor (lb/kgal)] \* [kgal/1000 gal] \* [ton/2000 lbs]

Sources of AP-42 Emission Factors for fuel combustion:

Natural Gas : AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4

No. 2 Fuel Oil: AP-42 Chapter 1.3 (dated 9/98), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, 1.3-10, and 1.3-11

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 SO2 = Sulfur Dioxide  
 NOx = Nitrous Oxides  
 VOC - Volatile Organic Compounds

CO = Carbon Monoxide  
 HAP = Hazardous Air Pollutant  
 HCl = Hydrogen Chloride  
 PAH = Polyaromatic Hydrocarbon

**Appendix A.2: Limited Emissions Summary  
Asphalt Load-Out, Silo Filling, and Yard Emissions**

**Company Name:** Niblock Excavating, Inc.  
**Source Address:** 5201 County Road 23, Bristol, Indiana 46507  
**Permit Number:** F039-30029-03296  
**Reviewer:** Janet Mobley

The following calculations determine the limited fugitive emissions from hot asphalt mix load-out, silo filling, and on-site yard for a drum mix hot mix asphalt plant

Asphalt Temperature, T =	325	F
Asphalt Volatility Factor, V =	-0.5	
Annual Asphalt Production Limitation =	1,000,000	tons/yr

Pollutant	Emission Factor (lb/ton asphalt)			Limited Potential to Emit (tons/yr)			
	Load-Out	Silo Filling	On-Site Yard	Load-Out	Silo Filling	On-Site Yard	Total
Total PM*	5.2E-04	5.9E-04	NA	0.26	0.29	NA	0.55
Organic PM	3.4E-04	2.5E-04	NA	0.17	0.127	NA	0.30
TOC	0.004	0.012	0.001	2.08	6.09	0.550	8.7
CO	0.001	0.001	3.5E-04	0.67	0.590	0.176	1.44

NA = Not Applicable (no AP-42 Emission Factor)

<b>PM/HAPs</b>	<b>0.012</b>	<b>0.014</b>	<b>0</b>	<b>0.027</b>
<b>VOC/HAPs</b>	<b>0.031</b>	<b>0.077</b>	<b>0.008</b>	<b>0.116</b>
<b>non-VOC/HAPs</b>	<b>1.6E-04</b>	<b>1.6E-05</b>	<b>4.2E-05</b>	<b>2.2E-04</b>
<b>non-VOC/non-HAPs</b>	<b>0.15</b>	<b>0.09</b>	<b>0.04</b>	<b>0.28</b>

<b>Total VOCs</b>	<b>1.95</b>	<b>6.09</b>	<b>0.5</b>	<b>8.6</b>
<b>Total HAPs</b>	<b>0.04</b>	<b>0.09</b>	<b>0.008</b>	<b>0.14</b>
		<b>Worst Single HAP</b>		<b>0.044</b>
				<b>(formaldehyde)</b>

**Methodology**

The asphalt temperature and volatility factor were provided by the source.

Limited Potential to Emit (tons/yr) = (Annual Asphalt Production Limitation (tons/yr)) \* (Emission Factor (lb/ton)) \* (ton/2000 lbs)

Emission Factors from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-14, 11.1-15, and 11.1-16

Plant Load-Out Emission Factor Equations (AP-42 Table 11.1-14)::

$$\text{Total PM/PM10 Ef} = 0.000181 + 0.00141(-V)e^{((0.0251)(T+460)-20.43)}$$

$$\text{Organic PM Ef} = 0.00141(-V)e^{((0.0251)(T+460)-20.43)}$$

$$\text{TOC Ef} = 0.0172(-V)e^{((0.0251)(T+460)-20.43)}$$

$$\text{CO Ef} = 0.00558(-V)e^{((0.0251)(T+460)-20.43)}$$

Silo Filling Emission Factor Equations (AP-42 Table 11.1-14):

$$\text{PM/PM10 Ef} = 0.000332 + 0.00105(-V)e^{((0.0251)(T+460)-20.43)}$$

$$\text{Organic PM Ef} = 0.00105(-V)e^{((0.0251)(T+460)-20.43)}$$

$$\text{TOC Ef} = 0.0504(-V)e^{((0.0251)(T+460)-20.43)}$$

$$\text{CO Ef} = 0.00488(-V)e^{((0.0251)(T+460)-20.43)}$$

On Site Yard CO emissions estimated by multiplying the TOC emissions by 0.32

\*No emission factors available for PM10 or PM2.5, therefore IDEM assumes PM10 and PM2.5 are equivalent to Total PM.

**Abbreviations**

TOC = Total Organic Compounds

CO = Carbon Monoxide

PM = Particulate

Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

HAP = Hazardous Air Pollutant

VOC = Volatile Organic Compound

**Appendix A.2: Limited Emissions Summary**  
**Asphalt Load-Out, Silo Filling, and Yard Emissions (continued)**

Company Name: Niblock Excavating, Inc.  
 Source Address: 5201 County Road 23, Bristol, Indiana 46507  
 Permit Number: F039-30029-03296  
 Reviewer: Janet Mobley

**Organic Particulate-Based Compounds (Table 11.1-15)**

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Limited Potential to Emit (tons/yr)			
					Load-out and Onsite Yard (% by weight of Total Organic PM)	Silo Filling and Asphalt Storage Tank (% by weight of Total Organic PM)	Load-out	Silo Filling	Onsite Yard	Total
<b>PAH HAPs</b>										
Acenaphthene	83-32-9	PM/HAP	POM	Organic PM	0.26%	0.47%	4.4E-04	6.0E-04	NA	1.0E-03
Acenaphthylene	208-96-8	PM/HAP	POM	Organic PM	0.028%	0.014%	4.8E-05	1.8E-05	NA	6.6E-05
Anthracene	120-12-7	PM/HAP	POM	Organic PM	0.07%	0.13%	1.2E-04	1.7E-04	NA	2.8E-04
Benzo(a)anthracene	56-55-3	PM/HAP	POM	Organic PM	0.019%	0.056%	3.2E-05	7.1E-05	NA	1.0E-04
Benzo(b)fluoranthene	205-99-2	PM/HAP	POM	Organic PM	0.0076%	0	1.3E-05	0	NA	1.3E-05
Benzo(k)fluoranthene	207-08-9	PM/HAP	POM	Organic PM	0.0022%	0	3.8E-06	0	NA	3.8E-06
Benzo(g,h,i)perylene	191-24-2	PM/HAP	POM	Organic PM	0.0019%	0	3.2E-06	0	NA	3.2E-06
Benzo(a)pyrene	50-32-8	PM/HAP	POM	Organic PM	0.0023%	0	3.9E-06	0	NA	3.9E-06
Benzo(e)pyrene	192-97-2	PM/HAP	POM	Organic PM	0.0078%	0.0095%	1.3E-05	1.2E-05	NA	2.5E-05
Chrysene	218-01-9	PM/HAP	POM	Organic PM	0.103%	0.21%	1.8E-04	2.7E-04	NA	4.4E-04
Dibenz(a,h)anthracene	53-70-3	PM/HAP	POM	Organic PM	0.00037%	0	6.3E-07	0	NA	6.3E-07
Fluoranthene	206-44-0	PM/HAP	POM	Organic PM	0.05%	0.15%	8.5E-05	1.9E-04	NA	2.8E-04
Fluorene	86-73-7	PM/HAP	POM	Organic PM	0.77%	1.01%	1.3E-03	1.3E-03	NA	2.6E-03
Indeno(1,2,3-cd)pyrene	193-39-5	PM/HAP	POM	Organic PM	0.00047%	0	8.0E-07	0	NA	8.0E-07
2-Methylnaphthalene	91-57-6	PM/HAP	POM	Organic PM	2.38%	5.27%	4.1E-03	6.7E-03	NA	0.011
Naphthalene	91-20-3	PM/HAP	POM	Organic PM	1.25%	1.82%	2.1E-03	2.3E-03	NA	4.4E-03
Perylene	198-55-0	PM/HAP	POM	Organic PM	0.022%	0.03%	3.8E-05	3.8E-05	NA	7.6E-05
Phenanthrene	85-01-8	PM/HAP	POM	Organic PM	0.81%	1.80%	1.4E-03	2.3E-03	NA	3.7E-03
Pyrene	129-00-0	PM/HAP	POM	Organic PM	0.15%	0.44%	2.6E-04	5.6E-04	NA	8.1E-04
<b>Total PAH HAPs</b>							<b>0.010</b>	<b>0.014</b>	<b>NA</b>	<b>0.025</b>
<b>Other semi-volatile HAPs</b>										
Phenol		PM/HAP	---	Organic PM	1.18%	0	2.0E-03	0	0	2.0E-03

NA = Not Applicable (no AP-42 Emission Factor)

**Methodology**

Limited Potential to Emit (tons/yr) = [Speciation Profile (%)] \* [Organic PM (tons/yr)]  
 Speciation Profiles from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-15 and 11.1-16

**Abbreviations**

PM = Particulate Matter  
 HAP = Hazardous Air Pollutant  
 POM = Polycyclic Organic Matter

**Appendix A.2: Limited Emissions Summary**  
**Asphalt Load-Out, Silo Filling, and Yard Emissions (continued)**  
**Limited Emissions**

**Organic Volatile-Based Compounds (Table 11.1-16)**

Pollutant	CASRN	Category	HAP Type	Source	Speciation Profile		Limited Potential to Emit (tons/yr)			
					Load-out and Onsite Yard (% by weight of TOC)	Silo Filling and Asphalt Storage Tank (% by weight of TOC)	Load-out	Silo Filling	Onsite Yard	Total
<b>VOC</b>		VOC	---	TOC	94%	100%	<b>1.95</b>	<b>6.09</b>	<b>0.52</b>	<b>8.57</b>
non-VOC/non-HAPS										
Methane	74-82-8	non-VOC/non-HAP	---	TOC	6.50%	0.26%	1.4E-01	1.6E-02	3.6E-02	0.187
Acetone	67-64-1	non-VOC/non-HAP	---	TOC	0.046%	0.055%	9.6E-04	3.4E-03	2.5E-04	0.005
Ethylene	74-85-1	non-VOC/non-HAP	---	TOC	0.71%	1.10%	1.5E-02	6.7E-02	3.9E-03	0.086
<b>Total non-VOC/non-HAPS</b>					<b>7.30%</b>	<b>1.40%</b>	<b>0.152</b>	<b>0.085</b>	<b>0.040</b>	<b>0.28</b>
Volatile organic HAPs										
Benzene	71-43-2	VOC/HAP	---	TOC	0.052%	0.032%	1.1E-03	1.9E-03	2.9E-04	3.3E-03
Bromomethane	74-83-9	VOC/HAP	---	TOC	0.0096%	0.0049%	2.0E-04	3.0E-04	5.3E-05	5.5E-04
2-Butanone	78-93-3	VOC/HAP	---	TOC	0.049%	0.039%	1.0E-03	2.4E-03	2.7E-04	3.7E-03
Carbon Disulfide	75-15-0	VOC/HAP	---	TOC	0.013%	0.016%	2.7E-04	9.7E-04	7.2E-05	1.3E-03
Chloroethane	75-00-3	VOC/HAP	---	TOC	0.00021%	0.004%	4.4E-06	2.4E-04	1.2E-06	2.5E-04
Chloromethane	74-87-3	VOC/HAP	---	TOC	0.015%	0.023%	3.1E-04	1.4E-03	8.3E-05	1.8E-03
Cumene	92-82-8	VOC/HAP	---	TOC	0.11%	0	2.3E-03	0	6.1E-04	2.9E-03
Ethylbenzene	100-41-4	VOC/HAP	---	TOC	0.28%	0.038%	5.8E-03	2.3E-03	1.5E-03	0.010
Formaldehyde	50-00-0	VOC/HAP	---	TOC	0.088%	0.69%	1.8E-03	4.2E-02	4.8E-04	0.044
n-Hexane	100-54-3	VOC/HAP	---	TOC	0.15%	0.10%	3.1E-03	6.1E-03	8.3E-04	0.010
Isooctane	540-84-1	VOC/HAP	---	TOC	0.0018%	0.00031%	3.7E-05	1.9E-05	9.9E-06	6.6E-05
Methylene Chloride	75-09-2	non-VOC/HAP	---	TOC	0	0.00027%	0	1.6E-05	0	1.6E-05
MTBE	1634-04-4	VOC/HAP	---	TOC	0	0	0	0	0	0
Styrene	100-42-5	VOC/HAP	---	TOC	0.0073%	0.0054%	1.5E-04	3.3E-04	4.0E-05	5.2E-04
Tetrachloroethene	127-18-4	non-VOC/HAP	---	TOC	0.0077%	0	1.6E-04	0	4.2E-05	2.0E-04
Toluene	100-88-3	VOC/HAP	---	TOC	0.21%	0.062%	4.4E-03	3.8E-03	1.2E-03	0.009
1,1,1-Trichloroethane	71-55-6	VOC/HAP	---	TOC	0	0	0	0	0	0
Trichloroethene	79-01-6	VOC/HAP	---	TOC	0	0	0	0	0	0
Trichlorofluoromethane	75-69-4	VOC/HAP	---	TOC	0.0013%	0	2.7E-05	0	7.2E-06	3.4E-05
m-/p-Xylene	1330-20-7	VOC/HAP	---	TOC	0.41%	0.20%	8.5E-03	1.2E-02	2.3E-03	0.023
o-Xylene	95-47-6	VOC/HAP	---	TOC	0.08%	0.057%	1.7E-03	3.5E-03	4.4E-04	5.6E-03
<b>Total volatile organic HAPs</b>					<b>1.50%</b>	<b>1.30%</b>	<b>0.031</b>	<b>0.079</b>	<b>0.008</b>	<b>0.119</b>

**Methodology**

Limited Potential to Emit (tons/yr) = [Speciation Profile (%)] \* [TOC (tons/yr)]

Speciation Profiles from AP-42 Chapter 11.1 (dated 3/04), Tables 11.1-15 and 11.1-16

**Abbreviations**

TOC = Total Organic Compounds

HAP = Hazardous Air Pollutant

VOC = Volatile Organic Compound

MTBE = Methyl tert butyl ether

**Appendix A.2: Limited Emissions Summary  
Material Storage Piles**

**Company Name:** Niblock Excavating, Inc.  
**Source Address:** 5201 County Road 23, Bristol, Indiana 46507  
**Permit Number:** F039-30029-03296  
**Reviewer:** Janet Mobley

Note: Since the emissions from the storage piles are minimal, the limited emissions are equal to the unlimited emissions.

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8,760 hours of use and USEPA's AP-42 (Pre 1983 Edition), Section 11.2.3.

$$E_f = 1.7 \cdot (s/1.5)^3 \cdot (365-p) / 235 \cdot (f/15)$$

where  $E_f$  = emission factor (lb/acre/day)  
 $s$  = silt content (wt %)  
 $p$  = 125 days of rain greater than or equal to 0.01 inches  
 $f$  = 15 % of wind greater than or equal to 12 mph

Material	Silt Content (wt %)*	Emission Factor (lb/acre/day)	Maximum Anticipated Pile Size (acres)**	PTE of PM (tons/yr)	PTE of PM10/PM2.5 (tons/yr)
Sand	2.6	3.01	0.30	0.165	0.058
Limestone	1.6	1.85	3.70	1.251	0.438
RAP	0.5	0.58	1.00	0.106	0.037
Gravel	1.6	1.85	3.20	1.082	0.379
Slag	3.8	0.40	1.00	0.803	0.281
<b>Totals</b>				<b>3.41</b>	<b>1.19</b>

**Methodology**

PTE of PM (tons/yr) = (Emission Factor (lb/acre/day)) \* (Maximum Pile Size (acres)) \* (ton/2000 lbs) \* (8760 hours/yr)

PTE of PM10/PM2.5 (tons/yr) = (Potential PM Emissions (tons/yr)) \* 35%

\*Silt content values obtained from AP-42 Table 13.2.4-1 (dated 1/95)

\*\*Maximum anticipated pile size (acres) provided by the source.

**Abbreviations**

- PM = Particulate Matter
- PM10 = Particulate Matter (<10 um)
- PM2.5 = Particulate Matter (<2.5 um)
- PM2.5 = PM10
- PTE = Potential to Emit

**Appendix A.2: Limited Emissions Summary**  
**Material Processing, Handling, Crushing, Screening, and Conveying**

**Company Name:** Niblock Excavating, Inc.  
**Source Address:** 5201 County Road 23, Bristol, Indiana 46507  
**Permit Number:** F039-30029-03296  
**Reviewer:** Janet Mobley

**Batch or Continuous Drop Operations (AP-42 Section 13.2.4)**

To estimate potential fugitive dust emissions from processing and handling of raw materials (batch or continuous drop operations), AP-42 emission factors for Aggregate Handling, Section 13.2.4 (fifth edition, 1/95) are utilized.

$$E_f = k \cdot (0.0032)^k \cdot (U/5)^{1.3} / (M/2)^{1.4}$$

where:  $E_f$  = Emission factor (lb/ton)

$k$ (PM) = 0.74	= particle size multiplier (0.74 assumed for aerodynamic diameter <=100 um)
$k$ (PM10) = 0.35	= particle size multiplier (0.35 assumed for aerodynamic diameter <=10 um)
$k$ (PM2.5) = 0.053	= particle size multiplier (0.053 assumed for aerodynamic diameter <=2.5 um)
$U$ = 10.2	= worst case annual mean wind speed (Source: NOAA, 2006*)
$M$ = 4.0	= material % moisture content of aggregate (Source: AP-42 Section 11.1.1.1)
$E_f$ (PM) = 2.27E-03	lb PM/ton of material handled
$E_f$ (PM10) = 1.07E-03	lb PM10/ton of material handled
$E_f$ (PM2.5) = 1.62E-04	lb PM2.5/ton of material handled

Annual Asphalt Production Limitation =	1,000,000	tons/yr
Percent Asphalt Cement/Binder (weight %) =	0.5%	
Maximum Material Handling Throughput =	995,000	tons/yr

Type of Activity	Limited PTE of PM (tons/yr)	Limited PTE of PM10 (tons/yr)	Limited PTE of PM2.5 (tons/yr)
Truck unloading of materials into storage piles	1.13	0.53	0.08
Front-end loader dumping of materials into feeder bins	1.13	0.53	0.08
Conveyor dropping material into dryer/mixer or batch tower	1.13	0.53	0.08
<b>Total (tons/yr)</b>	<b>3.38</b>	<b>1.60</b>	<b>0.24</b>

**Methodology**

The percent asphalt cement/binder provided by the source.  
 Maximum Material Handling Throughput (tons/yr) = [Annual Asphalt Production Limitation (tons/yr)] \* [1 - Percent Asphalt Cement/Binder (weight %)]  
 Limited Potential to Emit (tons/yr) = (Maximum Material Handling Throughput (tons/yr)) \* (Emission Factor (lb/ton)) \* (ton/2000 lbs)  
 Raw materials may include limestone, sand, recycled asphalt pavement (RAP), gravel, slag, and other additives  
 \*Worst case annual mean wind speed (Indianapolis, IN) from "Comparative Climatic Data", National Climatic Data Center, NOAA, 2006

**Material Screening and Conveying (AP-42 Section 19.2.2)**

To estimate potential fugitive dust emissions from raw material crushing, screening, and conveying, AP-42 emission factors for Crushed Stone Processing Operations, Section 19.2.2 (dated 8/04) are utilized.

Operation	Uncontrolled Emission Factor for PM (lbs/ton)*	Uncontrolled Emission Factor for PM10 (lbs/ton)*	Limited PTE of PM (tons/yr)	Limited PTE of PM10/PM2.5 (tons/yr)**
Crushing	0.0054	0.0024	2.69	1.19
Screening	0.025	0.0087	12.44	4.33
Conveying	0.003	0.0011	1.49	0.55
<b>Limited Potential to Emit (tons/yr) =</b>			<b>16.62</b>	<b>6.07</b>

**Methodology**

Maximum Material Handling Throughput (tons/yr) = [Annual Asphalt Production Limitation (tons/yr)] \* [1 - Percent Asphalt Cement/Binder (weight %)]  
 Limited Potential to Emit (tons/yr) = [Maximum Material Handling Throughput (tons/yr)] \* [Emission Factor (lb/ton)] \* [ton/2000 lbs]  
 Raw materials may include stone/gravel, slag, and recycled asphalt pavement (RAP)  
 Emission Factors from AP-42 Chapter 11.19.2 (dated 8/04), Table 11.19.2-2  
 \*Uncontrolled emissions factors for PM/PM10 represent tertiary crushing of stone with moisture content ranging from 0.21 to 1.3 percent by weight (Table 11.19.2-2). The bulk moisture content of aggregate in the storage piles at a hot mix asphalt production plant typically stabilizes between 3 to 5 percent by weight (Source: AP-42 Section 11.1.1.1).  
 \*\*Assumes PM10 = PM2.5

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 PM2.5 = Particulate Matter (<2.5 um)  
 PTE = Potential to Emit

**Appendix A.2: Limited Emissions Summary**  
**Unpaved Roads**

**Company Name:** Niblock Excavating, Inc.  
**Source Address:** 5201 County Road 23, Bristol, Indiana 46507  
**Permit Number:** F039-30029-03296  
**Reviewer:** Janet Mobley

**Unpaved Roads at Industrial Site**

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

Annual Asphalt Production Limitation = 1,000,000 tons/yr  
Percent Asphalt Cement/Binder (weight %) = 0.5%  
Maximum Material Handling Throughput = 995,000 tons/yr  
Maximum Asphalt Cement/Binder Throughput = 5,000 tons/yr  
No. 2 Fuel Oil Limitation = 1,093,014 gallons/yr

Process	Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per year (ton/yr)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	17.0	22.4	39.4	4.4E+04	1.8E+06	300	0.057	2523.8
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	17.0	0	17.0	4.4E+04	7.6E+05	300	0.057	2523.8
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	12.0	36.0	48.0	1.4E+02	6.7E+03	300	0.057	7.9
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	1.4E+02	1.7E+03	300	0.057	7.9
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	12.0	32.0	44.0	1.2E+02	5.1E+03	300	0.057	6.6
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	12.0	0	12.0	1.2E+02	1.4E+03	300	0.057	6.6
Aggregate/RAP Loader Full	Front-end loader (3 CY)	15.0	4.2	19.2	2.4E+05	4.5E+06	300	0.057	13460.5
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	15.0	0	15.0	2.4E+05	3.6E+06	300	0.057	13460.5
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	17.0	24.0	41.0	4.2E+04	1.7E+06	300	0.057	2367.4
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	17.0	0	17.0	4.2E+04	7.1E+05	300	0.057	2367.4
<b>Total</b>					<b>6.5E+05</b>	<b>1.3E+07</b>			<b>3.7E+04</b>

Average Vehicle Weight Per Trip = 20.2 tons/trip  
Average Miles Per Trip = 0.057 miles/trip

Unmitigated Emission Factor,  $E_f = k \cdot [(s/12)^a] \cdot [(W/3)^b]$  (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-3 Sand/Gravel Processing Plant Road)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2)
W =	20.2	20.2	20.2	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor,  $E_{ext} = E_f \cdot [(365 - P)/365]$

Mitigated Emission Factor,  $E_{ext} = E_f \cdot [(365 - P)/365]$   
where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, $E_f$	6.08	1.55	0.16	lb/mile
Mitigated Emission Factor, $E_{ext}$	4.00	1.02	0.10	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Vehicle Type	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Aggregate/RAP Truck Enter Full	Dump truck (16 CY)	7.67	1.96	0.20	5.05	1.29	0.13	2.52	0.64	0.06
Aggregate/RAP Truck Leave Empty	Dump truck (16 CY)	7.67	1.96	0.20	5.05	1.29	0.13	2.52	0.64	0.06
Asphalt Cement/Binder Truck Enter Full	Tanker truck (6000 gal)	0.024	0.006	0.00	0.016	0.004	4.0E-04	0.008	0.002	2.0E-04
Asphalt Cement/Binder Truck Leave Empty	Tanker truck (6000 gal)	0.024	0.006	0.00	0.016	0.004	4.0E-04	0.008	0.002	2.0E-04
Fuel Oil Truck Enter Full	Tanker truck (6000 gal)	0.020	0.005	5.1E-04	0.013	0.003	3.3E-04	0.007	0.002	1.7E-04
Fuel Oil Truck Leave Empty	Tanker truck (6000 gal)	0.020	0.005	5.1E-04	0.013	0.003	3.3E-04	0.007	0.002	1.7E-04
Aggregate/RAP Loader Full	Front-end loader (3 CY)	40.93	10.43	1.04	26.91	6.86	0.69	13.46	3.43	0.34
Aggregate/RAP Loader Empty	Front-end loader (3 CY)	40.93	10.43	1.04	26.91	6.86	0.69	13.46	3.43	0.34
Asphalt Concrete Truck Leave Full	Dump truck (16 CY)	7.20	1.83	0.18	4.73	1.21	0.12	2.37	0.60	0.06
Asphalt Concrete Truck Enter Empty	Dump truck (16 CY)	7.20	1.83	0.18	4.73	1.21	0.12	2.37	0.60	0.06
<b>Totals</b>		<b>111.70</b>	<b>28.47</b>	<b>2.85</b>	<b>73.45</b>	<b>18.72</b>	<b>1.87</b>	<b>36.72</b>	<b>9.36</b>	<b>0.94</b>

**Methodology**

Maximum Material Handling Throughput = [Annual Asphalt Production Limitation (tons/yr)] \* [1 - Percent Asphalt Cement/Binder (weight %)]  
Maximum Asphalt Cement/Binder Throughput = [Annual Asphalt Production Limitation (tons/yr)] \* [Percent Asphalt Cement/Binder (weight %)]  
Maximum Weight of Vehicle and Load (tons/trip) = [Maximum Weight of Vehicle (tons/trip)] + [Maximum Weight of Load (tons/trip)]  
Maximum trips per year (trip/yr) = [Throughput (tons/yr)] / [Maximum Weight of Load (tons/trip)]  
Total Weight driven per year (ton/yr) = [Maximum Weight of Vehicle and Load (tons/trip)] \* [Maximum trips per year (trip/yr)]  
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]  
Maximum one-way miles (miles/yr) = [Maximum trips per year (trip/yr)] \* [Maximum one-way distance (mi/trip)]  
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per year (ton/yr)] / SUM[Maximum trips per year (trip/yr)]  
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/yr)] / SUM[Maximum trips per year (trip/yr)]  
Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Unmitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)  
Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Mitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)  
Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) \* (1 - Dust Control Efficiency)

**Abbreviations**

PM = Particulate Matter  
PM10 = Particulate Matter (<10 um)  
PM2.5 = Particulate Matter (<2.5 um)  
PM2.5 = PM10  
PTE = Potential to Emit

**Appendix A.2: Limited Emissions Summary  
Cold Mix Asphalt Production and Stockpiles**

**Company Name:** Niblock Excavating, Inc.  
**Source Address:** 5201 County Road 23, Bristol, Indiana 46507  
**Permit Number:** F039-30029-03296  
**Reviewer:** Janet Mobley

The following calculations determine the amount of VOC and HAP emissions created from volatilization of solvent used as diluent in the liquid binder for cold mix asphalt production

Cold Mix Asphalt VOC Usage Limitation =  tons/yr

**Volatile Organic Compounds**

	Maximum weight % of VOC solvent in binder	Weight % VOC solvent in binder that evaporates	VOC Solvent Usage Limitation (tons/yr)	Limited PTE of VOC (tons/yr)	Liquid Binder Adjustment Ratio
Cut back asphalt rapid cure (assuming gasoline or naphtha solvent)	25.3%	95.0%	78.3	74.4	1.053
Cut back asphalt medium cure (assuming kerosene solvent)	28.6%	70.0%	106.3	74.4	1.429
Cut back asphalt slow cure (assuming fuel oil solvent)	20.0%	25.0%	297.6	74.4	4.000
Emulsified asphalt with solvent (assuming water, emulsifying agent, and 15% fuel oil solvent)	15.0%	46.4%	160.3	74.4	2.155
Other asphalt with solvent binder	25.9%	2.5%	2976.0	74.4	40.0
<b>Worst Case Limited PTE of VOC =</b>				<b>74.4</b>	

**Hazardous Air Pollutants**

Worst Case Total HAP Content of VOC solvent (weight %) =	26.08%
Worst Case Single HAP Content of VOC solvent (weight %) =	9.0% Xylenes
<b>Limited PTE of Total HAPs (tons/yr) =</b>	<b>19.41</b>
<b>Limited PTE of Single HAP (tons/yr) =</b>	<b>6.70 Xylenes</b>

**Hazardous Air Pollutant (HAP) Content (% by weight) For Various Petroleum Solvents\***

Volatile Organic HAP	CAS#	Hazardous Air Pollutant (HAP) Content (% by weight)* For Various Petroleum Solvents				
		Gasoline	Kerosene	Diesel (#2) Fuel Oil	No. 2 Fuel Oil	No. 6 Fuel Oil
1,3-Butadiene	106-99-0	3.70E-5%				
2,2,4-Trimethylpentane	540-84-1	2.40%				
Acenaphthene	83-32-9		4.70E-5%		1.80E-4%	
Acenaphthylene	208-96-8		4.50E-5%		6.00E-5%	
Anthracene	120-12-7		1.20E-6%	5.80E-5%	2.80E-5%	5.00E-5%
Benzene	71-43-2	1.90%		2.90E-4%		
Benzo(a)anthracene	56-55-3			9.60E-7%	4.50E-7%	5.50E-4%
Benzo(a)pyrene	50-32-8			2.20E-6%	2.10E-7%	4.40E-5%
Benzo(g,h,i)perylene	191-24-2			1.20E-7%	5.70E-8%	
Biphenyl	92-52-4			6.30E-4%	7.20E-5%	
Chrysene	218-01-9			4.50E-7%	1.40E-6%	6.90E-4%
Ethylbenzene	100-41-4	1.70%		0.07%	3.40E-4%	
Fluoranthene	206-44-0		7.10E-6%	5.90E-5%	1.40E-5%	2.40E-4%
Fluorene	86-73-7		4.20E-5%	8.60E-4%	1.90E-4%	
Indeno(1,2,3-cd)pyrene	193-39-5			1.60E-7%		1.00E-4%
Methyl-tert-butylether	1634-04-4	0.33%				
Naphthalene	91-20-3	0.25%	0.31%	0.26%	0.22%	4.20E-5%
n-Hexane	110-54-3	2.40%				
Phenanthrene	85-01-8		8.60E-6%	8.80E-4%	7.90E-4%	2.10E-4%
Pyrene	129-00-0		2.40E-6%	4.60E-5%	2.90E-5%	2.30E-5%
Toluene	108-88-3	8.10%		0.18%	6.20E-4%	
Total Xylenes	1330-20-7	9.00%		0.50%	0.23%	
<b>Total Organic HAPs</b>		<b>26.08%</b>	<b>0.33%</b>	<b>1.29%</b>	<b>0.68%</b>	<b>0.19%</b>
<b>Worst Single HAP</b>		<b>9.00%</b>	<b>0.31%</b>	<b>0.50%</b>	<b>0.23%</b>	<b>0.07%</b>
		<b>Xylenes</b>	<b>Naphthalene</b>	<b>Xylenes</b>	<b>Xylenes</b>	<b>Chrysene</b>

**Methodology**

Limited PTE of VOC (tons/yr) = [Weight % VOC solvent in binder that evaporates] \* [VOC Solvent Usage Limitation (tons/yr)]

Limited PTE of Total HAPs (tons/yr) = [Worst Case Total HAP Content of VOC solvent (weight %)] \* [Worst Case Limited PTE of VOC (tons/yr)]

Limited PTE of Single HAP (tons/yr) = [Worst Case Single HAP Content of VOC solvent (weight %)] \* [Worst Case Limited PTE of VOC (tons/yr)]

\*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2.

Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at:

<http://www.aehs.com/publications/catalog/contents/tph.htm>

**Abbreviations**

VOC = Volatile Organic Compounds

PTE = Potential to Emit

**Appendix A.2: Limited Emissions Summary  
Gasoline Fuel Transfer and Dispensing Operation**

**Company Name:** Niblock Excavating, Inc.  
**Source Address:** 5201 County Road 23, Bristol, Indiana 46507  
**Permit Number:** F039-30029-03296  
**Reviewer:** Janet Mobley

Note: Since the emissions from the gasoline fuel transfer and dispensing operation are minimal, the limited emissions are equal to the unlimited emissions.

To calculate evaporative emissions from the gasoline dispensing fuel transfer and dispensing operation handling emission factors from AP-42 Table 5.2-7 were used. The total potential emission of VOC is as follows:

$$\begin{aligned} \text{Gasoline Throughput} &= 0 \text{ gallons/day} \\ &= 0.0 \text{ kgal/yr} \end{aligned}$$

**Volatile Organic Compounds**

Emission Source	Emission Factor (lb/kgal of throughput)	PTE of VOC (tons/yr)*
Filling storage tank (balanced submerged filling)	0.3	0.00
Tank breathing and emptying	1.0	0.00
Vehicle refueling (displaced losses - controlled)	1.1	0.00
Spillage	0.7	0.00
<b>Total</b>		<b>0.00</b>

**Hazardous Air Pollutants**

Worst Case Total HAP Content of VOC solvent (weight %)* =	26.08%	
Worst Case Single HAP Content of VOC solvent (weight %)* =	9.0%	Xylenes
<b>Limited PTE of Total HAPs (tons/yr) =</b>	<b>0.00</b>	
<b>Limited PTE of Single HAP (tons/yr) =</b>	<b>0.00</b>	<b>Xylenes</b>

**Methodology**

The gasoline throughput was provided by the source.

Gasoline Throughput (kgal/yr) = [Gasoline Throughput (lbs/day)] \* [365 days/yr] \* [kgal/1000 gal]

PTE of VOC (tons/yr) = [Gasoline Throughput (kgal/yr)] \* [Emission Factor (lb/kgal)] \* [ton/2000 lb]

PTE of Total HAPs (tons/yr) = [Worst Case Total HAP Content of VOC solvent (weight %)] \* [PTE of VOC (tons/yr)]

PTE of Single HAP (tons/yr) = [Worst Case Single HAP Content of VOC solvent (weight %)] \* [PTE of VOC (tons/yr)]

\*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2.

Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at:

<http://www.aehs.com/publications/catalog/contents/tph.htm>

**Abbreviations**

VOC = Volatile Organic Compounds

PTE = Potential to Emit



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
**Governor**

*Thomas W. Easterly*  
**Commissioner**

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

## SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Michael Maggart  
PE  
Niblock Excavating, Inc.  
1080 Spartan Dr.  
Columbia City IN 46725

DATE: April 27, 2011

FROM: Matt Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

SUBJECT: Final Decision  
FESOP Renewal  
039-30029-03296

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:  
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at [jbrush@idem.IN.gov](mailto:jbrush@idem.IN.gov).

Final Applicant Cover letter.dot 11/30/07



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
**Governor**

*Thomas W. Easterly*  
**Commissioner**

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

April 27, 2011

TO: Bristol Washington Twp. Public Library

From: Matthew Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

**Applicant Name: Niblock Excavating, Inc.**  
**Permit Number: 039-30029-03296**

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures  
Final Library.dot 11/30/07

# Mail Code 61-53

IDEM Staff	BMILLER 4/27/2011 Niblock Excavating, Inc. 039-30029-03296 (final)		Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handling Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee
											Remarks
1		Michael Maggart PE Niblock Excavating, Inc. 1080 Spartan Dr Columbia City IN 46725 (Source CAATS) <i>Via Confirm Delivery</i>									
2		Bristol Washington Twp Public Library P O Box 789 Bristol IN 46507-9464 (Library)									
3		Elkhart County Health Department 608 Oakland Avenue Elkhart IN 46516 (Health Department)									
4		Laurence A. McHugh Barnes & Thornburg 100 North Michigan South Bend IN 46601-1632 (Affected Party)									
5		Bristol Town Council and Town Manager P.O. Box 122 Bristol IN 46507 (Local Official)									
6		Elkhart County Board of Commissioners 117 North Second St. Goshen IN 46526 (Local Official)									
7		Mark Zeltwanger 26545 CR 52 Nappanee IN 46550 (Affected Party)									
8											
9											
10											
11											
12											
13											
14											
15											

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See <b>Domestic Mail Manual R900, S913, and S921</b> for limitations of coverage on inured and COD mail. See <b>International Mail Manual</b> for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
---	--	--	--